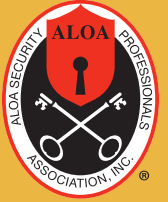


# KEYNOTES

SECURING YOUR SUCCESS



# ALO A

## ELECTIONS 2021

Choose the association's next leaders

**A Look at  
Master Ring Cylinders**  
Good buildings deserve good hardware

**PLUS**  
**Nightmares  
on the Job**



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800.847.5625

[seclock.com](https://seclock.com)

A large, detailed image of a Medeco ASSA ABLOY M4 key and its corresponding cylinder. The key is a light-colored metal with a complex, multi-bit profile. The cylinder is a darker metal with a circular face. The key is inserted into the cylinder, and a large, stylized number '4' is overlaid on the image, partially covering the key and cylinder. The background is a dark, textured surface.

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ASSA ABLOY

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and more open world

**MORE INNOVATION** | The technology built into Medeco 4 stretches the boundaries of features that can fit into a single cylinder.

**MORE PROTECTION** | A movable element on the key engages a lift pin to activate the sidebar for more protection against picking, as well as 3D printing.

**MORE COMBINATIONS** | Side-pin bittings allow for a vast number of pinning combinations to support the largest key system requirements.

**MORE SECURITY** | Our history of enforcing patents along with stringent key control programs makes every cylinder the most secure it can be.





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Good buildings deserve good hardware.



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MAY 2021 | VOLUME 67, ISSUE 5

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# A Strong 2021 for ALOA

**I**T LOOKS LIKE SPRING HAS finally sprung! As we enter the month of May, ALOA elections are kicking off. Make sure you take the time to vote for your new upcoming leaders of ALOA. Along those lines, if you have not listened to ALOA's new podcast, *Locksmith Talk With ALOA*, please give it a listen. Episode 12 is a "presidential debate" with Noel Flynn and Bill Mandlebaum.

May also brings us another month closer to the convention! This year's convention is July 25-31 in Orlando, FL. Mark your calendars and plan to attend! After being shut in for the last year or so, it will be nice to get away and see some of our friends and colleagues, get some education, see some new products and enjoy some sun! I really hope to see you there.

## Spring Board Meeting and Headquarters Sale

On May 15 and May 22, the ALOA board will be having the spring board meeting via Zoom. Among the many items to be discussed is the recent sale of the ALOA headquarters, which I would like to take the time to update you all about now.

As you know, the sale of our Easy Street properties has been completed, proceeds have been deposited in ALOA's bank account, and we have leased and occupied a 5,000-square-foot building located about one mile from the Love Field airport in Dallas. This prompt sale avoids any further potential exposure to

significant ongoing expense associated with the ground-stabilization issues of the Easy Street properties. These issues are characteristic of that area because of its location on a dry riverbed.

Most of the new space is warehouse, and there is much work to be done to get organized at the leased building. Although not ideal, we can function in this short-term space with little problem. Once we get set up properly, preparation will begin for the much-anticipated convention. The occupancy cost of the leased property is comparable to Easy Street. This means that we do not anticipate having to erode proceeds from the Easy Street sale to pay for materially incremental occupancy expenses.

The sale has provided additional cash reserves in the event they are needed for working capital. But it's our plan to conserve sufficient cash from the sale proceeds to ultimately fund the purchase of a suitable replacement headquarters property further outside the city where taxes and operating expenses are expected to be lower. Leasing the temporary space provides an opportunity to assess our post-pandemic environment and any relevant implications that may influence our longer-term space requirements.

## Looking to the Future

The pandemic continues to cast a shadow of uncertainty over our world, and this frustrates our ability to plan property. However, at this juncture, we



are optimistic and anticipate being able to hold the 2021 Convention & Security in Orlando at the end of July.

I am pleased to report that we have received government forgiveness for our PPP loan from 2020. We have also applied for a second forgivable loan in 2021. These two infusions, coupled with the proceeds from sale of Easy Street, place ALOA in a strong cash position. It is also my pleasure to report that membership renewals for 2021 are robust and very encouraging.

In conclusion, with significant portions of the U.S. and world populations being vaccinated and COVID-19 restrictions generally continuing to move toward greater relaxation, we are seeing light at the end of the tunnel. However, we will need to be somewhat patient, since our world will return to its new normal at a pace that may be slower than we would prefer. Better days are ahead!

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

# Elections Time at ALOA

**I**T'S MAY, WHICH MEANS IT'S that time of year again for electing ALOA board members. The bylaws dictate that in odd-numbered years, the following positions are up for election: president of the association and directors of the Southeast, North Central, Southwest and Associate regions. While some are running unopposed this year, we do have two candidates running for president.

By voting in our board elections, you aren't just voting for leaders; you're voting for the future direction of ALOA SPAI. I know many members have expressed thoughts and ideas over the years about their vision for the association. Now is the time to choose who you think will best enact that vision and take ALOA where you want it to go.

On pages 14-17, we have all of the candidate bios listed, along with a hard copy of the ballot. To learn a bit more about each presidential candidate, listen to the recent *Locksmith Talk With ALOA* podcast episode where they were interviewed. You can find it at [amzn.to/32w8mWT](https://amzn.to/32w8mWT). If you haven't listened to the podcast yet, you really should. All of the episodes are available for free via that link. We have had 12 so far and plan to continue with production regularly.

Remember: You can vote online via the members-only site at [aloamembers.org](https://aloamembers.org).

**"By voting in our board elections, you aren't just voting for leaders — you're voting for the future direction of ALOA SPAI."**

You will need to log in with your member number to vote, and the deadline is June 2 at 11:59 p.m. If you need assistance, please contact [membership@aloa.org](mailto:membership@aloa.org).

## **ALOA Convention**

I hope you all had the chance to carefully read through the full ALOA Convention & Security Expo registration brochure that we included with the April issue of *Keynotes*. We are so excited for the return to conventions, and we hope you join us July 25-31 in Orlando at the Caribe Royale.

Online registration is now available at [aloamembers.org](https://aloamembers.org). The early registration deadline is July 1, but many classes will fill up well before then. Register soon to get your best chance of first-pick classes.



If you have any questions or need help, contact [conventions@aloa.org](mailto:conventions@aloa.org).

## **ALOA Relocation**

As noted in the last issue of *Keynotes*, the ALOA Headquarters building on Easy Street has sold, and we have completed our move out. Our address for now is 1407 N. Riverfront Blvd. #303, Dallas, TX 75207, and our phone number remains (214) 819-9733. If you need to mail anything to ALOA SPAI, please use this address.

As we continue to look for a permanent office space, we will keep members posted on new developments. Thank you for your understanding and support during this transitional time. We are still here for members in every way we always have been, and we look forward to continuing to serve you well into the future.

*Mary A. May*

Mary A. May  
Executive Director  
[mary@aloa.org](mailto:mary@aloa.org)





## GREAT TOOLS FROM FRAMON

### Tubular Lock Saw

Framon's TLS1 Tubular Lock Saw allows you to quickly and easily open tubular locks when the key is lost. The TLS1 drills out the bottom pins, giving you the ability to simply insert a blank tubular key and open the lock. The TLS1 fits in any 3/8" or 1/2" drive drill.



**\$42<sup>95</sup>**

*suggested dealer price*



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**QPKW – Kwikset Replacement Blade**

**QPSC – Schlage Replacement Blade**

Framon now offers both Kwikset and Schlage blades for the A1 Quick Pull tool. These replacement blades will fit into the Quick Pull and are steel base material that has been hardened.

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### SDK1 Safe Deposit Killer Kit

Framon's new Safe Deposit Killer Kit makes quick & easy work out of drilling S & G and Diebold safe deposit box locks. When traditional methods can't be used due to a plastic or flimsy door the killer kit is your answer. Simply insert the appropriate guide into the keyway and use a hole saw to drill out the face of the plug. Easy entry in minutes. Kit comes with three guides and two-hole saws in an easy to store plastic carrying case. Made in the USA.



**\$149<sup>95</sup>**

*suggested dealer price*

### Blue Dog Keys

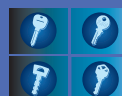


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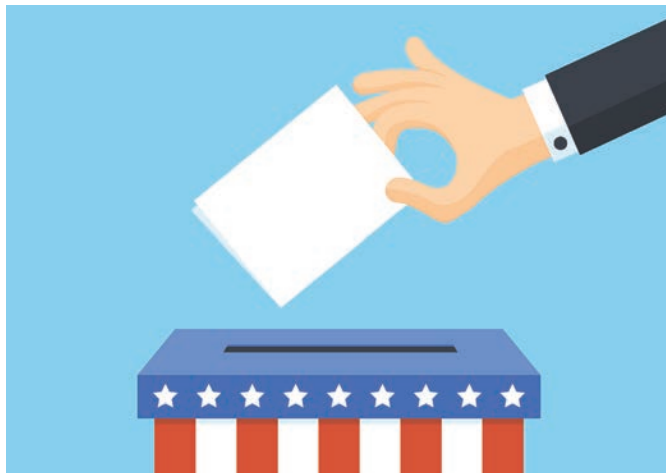
# Online ALOA 2021 Registration Is Now Available!



**O**NLINE REGISTRATION IS NOW OPEN FOR THE 2021 ALOA Convention & Security Expo! Visit [ALOA.org](http://ALOA.org) and click on the Convention tab to be directed to the link. Registration is also available via the hard-copy form in the registration brochure that was included with the April issue of *Keynotes*.

Register now so you can join us July 25-31 in Orlando. Don't forget to make your hotel reservations at the Caribe Royale as well. Call (888) 258-7501 and mention group name "ALOA" to reserve your room today.

For more information, please see page 12 to read the "Main Event," or email [conventions@aloa.org](mailto:conventions@aloa.org).



## Vote in the ALOA Board Elections

**I**T'S ELECTION TIME AT ALOA! TAKE A LOOK AT PAGE 14 to read bios of all of the candidates running for this year's open positions and to tear out a paper copy of the ballot. Online voting is also available. A link will be emailed to all members, and you can also find a link on the membership website at [aloamembers.org](http://aloamembers.org).

For questions, email [membership@aloa.org](mailto:membership@aloa.org). Interested in running next year? It's never too early to request forms so you can get organized for running!

### PRODUCT BRIEFS

» **Securitech** has launched Ayzre, a hands-free solution for operating door levers. It was developed for infection control and the prevention of community spread of COVID and allows for hygienic operation of doors with latches. Easily retrofitted, Ayzre is an ADA-accessible solution that fits over existing door handles and can be installed in under 10 minutes. It's antimicrobial, fire-rated and designed for use with Grade 1 cylindrical lever locks, many mortise lever locks and exit device lever trim.

Learn more at [Securitech.com/Ayzre](http://Securitech.com/Ayzre).

» **Locinox** has introduced FortiMa, a magnetic child-safe gate latch. It has anodized aluminum and powder-coated components. It can be installed on a wide range of gate materials is compatible with most international code requirements. The wide-mouth latch can be rekeyed to match any existing lock and has a vertical adjustability of 1" and horizontal adjustability for a 3/8" to 1 1/2" gap. The FortiMa also features a greater vertical tolerance (3/4") long after installation. The product was submitted to a 1000-hour salt spray test and will resist temperatures from -22 to 165 degrees F.





# dormakaba

## Appoints New CEO

**T**HE DORMAKABA BOARD OF DIRECTORS HAS APPOINTED SABRINA SOUSSAN as the company's new chief executive officer. She succeeds Riet Cadonau, who remains chairman. Soussan most recently served as co-CEO of Siemens Mobility in Munich.

Hans Hess, vice-chairman, lead independent director and chair of the Nomination Committee of dormakaba says, "Sabrina Soussan combines strong leadership and personal skills, profound industrial knowledge and a successful track record of growing businesses profitably. We are pleased that she will be joining dormakaba and assuming the CEO role as of next April, and we are looking forward to working with her to further develop dormakaba as a leading access and security solutions provider."

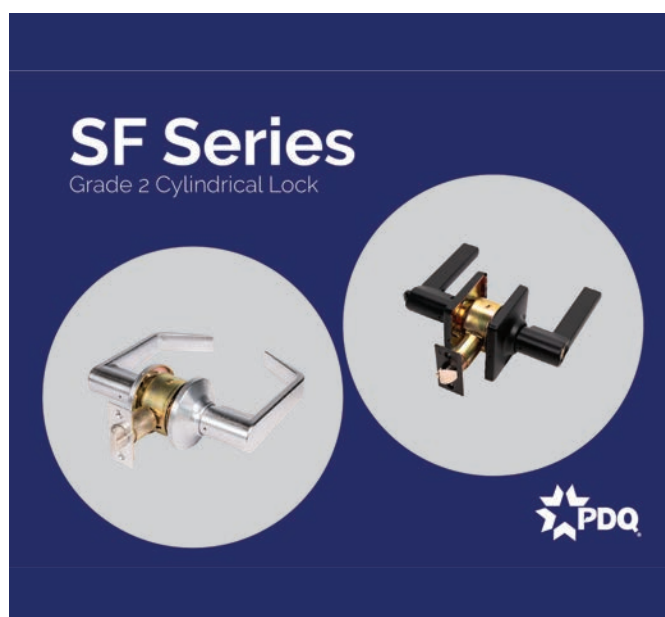


## PDQ Unveils New Cylindrical Lock

**P**DQ HAS INTRODUCED THE SF SERIES GRADE 2 Standard Duty Cylindrical Lock as part of its family of security products. It's designed for multi-family dwellings, senior living, student housing and light commercial applications. It shares common levers and finishes with PDQ's Grade 2, SD Cylindrical and CL Interconnected locks.

The lock features four functions: privacy, passage, entrance and single dummy. There are five levers and six architectural finishes available, and there are round and square roses. The backset is adjustable from 2⅜" to 2¾", and the lock retrofits all major door preps.

For more information, visit [pdqlocks.com](http://pdqlocks.com).



### NEWS BRIEF

» The **DHI** Board of Governors and **DSSF** Board of Trustees have appointed Cedric Calhoun, FASAE, CAE, as chief executive officer. He succeeds Sharon Newport, CAE, who served as interim chief executive officer following the retirement of Jerry S. Heppes Sr., CAE, in October 2020. Calhoun comes to DHI and DSSF with more than 20 years of association management experience, having served in CEO roles since 2007. Most recently, he served as president and CEO of Eclipse Business Strategies. Prior to this, he held the positions of executive vice president of the National Association of Enrolled Agents and executive director of the Alliance of Hazardous Materials Professionals.

### IN MEMORIAM



» **John S. Becker Sr., RL**, of Schenectady, NY, passed away in 2020. He was a member of ALOA from 1997 until his passing in 2020.

## NEW APPLICANTS

### CALIFORNIA

Tarzana

- **Shahar Navon**  
Get Pro Locksmith Inc.

### COLORADO

Pueblo

- **Daniel R. Sandoval**  
Sure Lock Locksmith

### FLORIDA

Loxahatchee

- **Alexis Williams**  
AutoKey Rescue LLC

North Port

- **Anthony S. Whitmore**  
Sponsor: Joe Moyer, CRL

### ILLINOIS

Chicago

- **Cosme Garza Jr., ARL, CRL, CAL**  
Chitown Lock  
Sponsor: Michael Bronzell, RL

Palatine

- **Oleg Berkovich**  
Apprentice Member

West Frankfort

- **Shawn M. Baldi**  
Apprentice Member

### INDIANA

Ellettsville

- **Levi C. Barger**  
J and S Locksmith

Wabash

- **Jacob A Berkheiser**  
Canal Lock And Safe Inc.  
Apprentice Member  
Sponsor: Alan B. Palmer, RL

### IOWA

Davenport

- **Justin R. Sawyer**  
J & J Locks Safes and Alarms  
Sponsor: John H. Sawyer, CRL
- **Ryan L. Sawyer**  
J & J Locks, Safes and Alarms  
Sponsor: John H. Sawyer, CRL

### KENTUCKY

Owingsville

- **Israel P. Jacobs**  
Leather Jacket Locksmithing

### MARYLAND

Baltimore

- **Scott G. Lapp**  
Easter's Lock & Security Systems
- **Mark C. Parker, CRL**  
WFX Fire, Lock & Security, Inc.  
Sponsor: Michael E. Jordan Jr., CML

### MASSACHUSETTS

Wilmington

- **Ryan J. Kinsella**  
Apprentice Member

### MICHIGAN

Blaine

- **James W. Kingsbury, III**
- Gaylord
- **Mike L. Blunt**  
Alpine Locksmith  
Sponsor: Wayne Winton, ARL

### NORTH CAROLINA

West Jefferson

- **Cameron E. Miller Jr.**  
WJ Locksmith

### OHIO

Parma

- **Allen J. Fitch**  
Fitch Locksmith

### PENNSYLVANIA

Apollo

- **Daniel R. Clawson**  
Apprentice Member

### SOUTH CAROLINA

Goose Creek

- **Robert M. Dotolo**  
TAS Locksmith LLC
- Greenville
- **Jeffrey Crump**

### TEXAS

Fort Worth

- **Jesus Lopez**  
Texas Christian University
- **Greg Pitts**

### VIRGINIA

Staunton

- **Jason L. Back**  
KingPin Locksmith Services

### WISCONSIN

Siren

- **Jeffrey W. Kline**  
Kline Locksmith Inc.  
Sponsor: Roger D. Kline, RL

### CANADA

Victoria, BC

- **Adam WH Heslop**  
Arcadia Lock and Key

## ALOA CERTIFICATIONS

CPS

- **Mario Chang, CPS**  
Denver, CO

CRL

- **Jan C. Cunnion, CRL**  
Alexandria, VA

## 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 469-543-5241. 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](http://www.aloea.org).

### MAY

May 17-28

**2021 Southern Lock Virtual Learning Expo**  
[southernlock.com](http://southernlock.com)  
Call 727-541-5536 or  
email [sduncan@southernlock.com](mailto:sduncan@southernlock.com).

### JUNE

June 16-18

**IML Colorado**  
Denver, CO  
[imlss.com/Events.html](http://imlss.com/Events.html)

### JULY

July 25-31

**2021 ALOA Convention & Security Expo**  
Caribe Royale  
Orlando, FL  
[conventions@aloea.org](mailto:conventions@aloea.org) or (800) 532-2562

### SEPTEMBER

September 22-25

**GPLA 2021 Convention**  
DoubleTree Hotel Philadelphia Airport  
Philadelphia, PA  
[gpla.org](http://gpla.org)

### OCTOBER

October 20-24

**Yankee Security Convention**  
The MassMutual Center  
Springfield, MA  
[yankeesecurity.org](http://yankeesecurity.org)





# Register for ALOA 2021 in Orlando

**S**O MUCH IS HAPPENING IN 2021... WHERE TO BEGIN? WORK IS PICKING up, and I have a couple of forensic cases to review. I had only one last year. ALOA SPAI sold its headquarters building, and with it went the training center. With the state of the economy and the new government changes, I believe that this was an excellent move for the time. Everything I hear is indicating we are headed toward a real-estate market crash, and that is always a good time to buy a new property. Kudos to the ALOA team for making this move now!

The 2021 ALOA Convention & Security Expo in Orlando will be a new awakening for our industry. There will be classes and hands-on events for everyone in the forensic field. Whatever your forensic specialty is, make sure you have the latest knowledge so that you can be the best in your chosen field. I cannot stress how important education is to a forensic investigator. Keep in mind that your local community college offers criminal justice courses, and a lot of these will help you qualify to take the Certified Forensic Locksmith (CFL) exam. Courses that transfer to IAIL requirements are: Evidence Handling, Evidence Report Writing, Crime Scene inspection and Forensic Photography. If you aren't sure of your course, contact me directly with a copy of the syllabus to be reviewed.

## Recertification Forms

The new recertification forms were sent to ALOA Education, and they should start administering the forms once everyone signs off. I want to thank Beta Tam for all his hard work in pulling together these requirements for recertification. Our concern has been that there must be strict guidelines for recertification so that our credentials can withstand scrutiny from attorneys looking to discredit our witness.

For those of you who are active investigators, the requirements are nothing but restating your active cases. Those of you who have not worked a case in the past three years will be required to do a case report on a topic of the CFL committee's choosing. This is to show that you still have the skills to meet your credential.

Associations that are connected to forensic investigations are listed here. Visit them and see if you would like to be involved as a member.

## Forensic-Related Associations

- IAATI (International Association of Auto Theft Investigators), IAATI.org
- NITA (National Institute for Trial Advocacy), nita.org
- Expert Witness Companies
- TASA (The TASA Group), tasanet.com
- RTG (The Round Table Group), RoundTableGroup.com

If you have any questions, suggestions, or ideas, please contact me directly at IAILPresident@aloea.org. ☎



**Tom Resciniti Demont, AHC, CAI, CFDI, CFL, CMIL, CML, CMST, ICML, IFDI, LSFDI, ARL.** President, International Association of Investigative Locksmiths.

IAILPresident@aloea.org

## Get Published!

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



# Online ALOA 2021 Registration Is Open!

Register today before classes fill up.

**O**NLINE REGISTRATION FOR THE 2021 ALOA CONVENTION AND Security Expo is now open! Register today to get your best chance at your first choice of classes. View the full convention brochure online to see all of the classes and events available, or take a look at the printed brochure that was included in the April issue of *Keynotes*.

Join us in Orlando July 25-31 at the Caribe Royale to be part of the best convention in the industry. At our return to conventions, there will be more than 60 classes and seminars covering a wide range of topics, from automotive and electronic locksmithing to business topics and master keying.

The SAFETECH Convention was not able to happen this year, but there will be several safe-related classes at ALOA 2021, including Introduction to Safe Drilling, Electronic Safe Lock Service, Electronic Lock Defeat and Repair, and Basic Mechanical Safe Lock. We will also have a series of classes on safe deposit locks where you can learn the basics as well as service and defeat. Get some certifications too, including for the DK-10 and the X-10.

Take some PRP tests while the material is fresh on your mind. You can take several elective tests right after classes, and you have two choices of times to take the PRP/STPRP mandatory test. Get your certifications so you can better position yourself with future clients!

## Security Expo

Take the full two days to browse the Security Expo show floor, where companies from every segment of the security industry will be demonstrating their products. Learn all about the latest tools and hardware and take advantage of show specials. As always, there will be drawings every hour, where you can win prizes

such as gift cards, tools or even a full registration package for the 2022 ALOA Convention.

## Networking

Meet fellow locksmiths and safe techs, swap stories and network with suppliers. Make connections for future jobs, referrals or just forge closer connections with your peers. In-person time with others in your industry is irreplaceable, from talking shop at dinner to swapping recommendations and tips during classes.

## Travel

Orlando is such an easy city to get to, with direct flights from all over the United States. Be sure to reserve your hotel room soon, as rooms are sure to sell out at the Caribe Royale. Rates are only \$159 per night inclusive of resort fee, and you get so much: free in-room WiFi, free fitness center access, a pool complex, newspapers in the lobby and shuttle service to Disney. ☺



# ALOA 2021

July 25-31

Caribe Royale  
8101 World Center Dr.  
Orlando, FL 32821

**Early Registration Deadline:**  
July 1

**Hotel Rate:** \$159/night  
(inclusive of resort fee)

Reserve your room by calling  
888-258-7501 and using the  
group name "ALOA."






# ALOA ELECTIONS 2021

## A LETTER FROM THE PRESIDENT




Dear ALOA SPAI Member,


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



As president, I've called a special meeting at 10 a.m. CDT on June 4, 2021, to be held remotely. The purpose of the meeting is to elect the officers and directors of the association. The ballot is in the form of a proxy, prepared for you to give specific instructions to the holder of the proxy. This will ensure that your vote is counted exactly as you desire. You must provide your name, member number and date, and you must sign the form. (Failure to properly complete the proxy may result in your ballot being invalid.) Please vote for president and your representative director(s). Write-in candidates are not allowed, and no one is "running from the floor" at this special meeting of the membership.



If you have any questions, you can direct them to Mary May, our Executive Director, and/or me. Please vote online at [www.aloa.org](http://www.aloa.org), or mail or fax the proxy as soon as possible. In order for your vote to count, the holder of your proxy, as designated, must be present at the meeting and have the properly completed proxy with them. This means that your ballot must be received no later than 11:59 p.m. CDT on June 2, 2021. You do not have to designate Barry Roberts, Esq., as your proxy. You may give your proxy to anyone else, but they must attend the special membership meeting on June 4, 2021, with your signed and dated proxy in hand. Please participate in the future of your association!



Jim Wiedman, CML, CAI  
President  
ALOA Security Professionals  
Association, Inc.  
[president@aloe.org](mailto:president@aloe.org)



## FOR THE OFFICE OF **PRESIDENT**

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



### **Bill Mandlebaum**

I have been a locksmith since 1976 and an ALOA member since 1978. I own a small shop in Bowling Green, OH (The Brass Key Shop). I have one full-time and one part-time employee. I served three two-year terms as president of Penn-Ohio Locksmith Assn. I am still active in that association. I have been active with the Ohio Valley Chapter of ALOA. I have been on the Bylaws Committee for ALOA, and we have tried to make ALOA more member-friendly by rewriting the Bylaws so that members could vote by proxy on many items on the agenda. I would like to continue to make ALOA more member

friendly. I would appreciate your vote.



### **Noel Flynn**

Most of my career has been in senior business management, leadership, consulting and business owner roles, in many industries worldwide, including more than 20 years in the security door hardware industry. Having served on ALOA's board since 2011, chairman of several principal committees and being an ACE instructor and author, I am intimately familiar with ALOA's challenges and sincerely care about our organization.

Although we are a 60-plus-year-old not-for-profit membership entity, it is crucial that we survive as a viable business! We endured the pandemic's big financial hit in 2020, but 2021 ushered in a climate of extraordinary economic uncertainty and unprecedented serious threats to ALOA's future. Frankly, perhaps more than ever, our organization needs experienced, qualified business management leadership. Accordingly, I'm requesting your vote for me as ALOA's President in the upcoming election.

## FOR THE OFFICE OF **NORTH CENTRAL REGION DIRECTOR**

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



### **Guy Spinello, RL**

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

I have served as North Central Director previously from 2003-2009.

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



## FOR THE OFFICE OF **SOUTHWEST REGION DIRECTOR**

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



### **Guy T. Robinson**

Guy has been involved in multiple areas of the lock, door, and access control industry for over 42 years. He also served in the U.S. Army as a light-infantryman. During the last 42 years Guy has worked as a shop technician, road technician, locksmith shop manager, and owner. In 2006 Guy accepted an offer to become a member of an ASSA ABLOY DSS team, representing ASSA ABLOY in Louisiana and southern Texas. Guy developed and is currently managing a state of the art ASSA ABLOY training facility for lock, door and access control products. Guy, since joining ASSA ABLOY in 2006, has earned

a B.S. in Business Administration from the University of Phoenix and a M.A. in Communication from California State University- San Bernardino, focusing on instructional and business communication. Guy holds many certificates of achievement and industry certifications, including a CPL and PSP. Guy has been married to his beautiful wife Christy for 29 years and they have two children and three grandchildren.

## FOR THE OFFICE OF **SOUTHEAST REGION DIRECTOR**

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



### **Tyler J. Thomas**

My name is Tyler J. Thomas and I am a locksmith in Atlanta, GA. I have been a member of ALOA since 2008 and I am a member of the Clearstar Security Network. I currently serve as Southeast Director.

My goals are to increase membership numbers, increase revenue for the Association, attract “young blood” to the trade and Association, expand education opportunities, revitalize the PRP, and increase convention attendance while lowering vendor/attendee costs. Here’s how I plan to do it: [www.lockreference.com/aloa/](http://www.lockreference.com/aloa/)

## FOR THE OFFICE OF **DIRECTOR, ASSOCIATE REGION**

Vote for One Only | Eligible to vote: Associate members



### **Noel Flynn**

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

Noel has also been a “C” level executive, officer, board director and advisor to not-for profit and for profit companies in numerous industries world wide. This includes the ALOA board where he has been a director since 2010 and currently serves as Chairman of both the Audit and Strategic Planning committees. He is also an ACE instructor and teaches business management classes.



# ALOA ELECTIONS 2021 BALLOT

The undersigned, being an ALOA Security Professionals Association, Inc. (ALOA SPAI) member, hereby appoints Barry Roberts, Esq., my proxy and true and lawful attorney of the undersigned to attend the Special Meeting of the Membership of ALOA to be held at 1407 Prudential, Dallas, TX 75247 on June 4, 2021, at 10 a.m. CDT, or any adjournment thereof, and to vote on behalf of said ALOA member as designated below:

## For the Office of President

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

☐ Bill Mandlebaum

☐ Noel Flynn

## For the Office of North Central Region Director

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

☐ Guy Spinello

## For the Office of Southwest Region Director

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

☐ Guy Robinson

## For the Office of Southeast Region Director

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

☐ Tyler J. Thomas

## For the Office of Associate Region Director

Vote for One Only. (Eligible to vote: Associate members)

☐ Noel Flynn

Print/type name of ALOA member

Member number

Signature

Date

This proxy must be signed and dated with member number to be considered valid. It must be received no later than 11:59 p.m. CDT, June 2, 2021, and be mailed/faxed only to:

Simply Voting Inc.  
102 W. Service Road, #585  
Champlain, NY 12919-4440  
Fax: (817) 649-3202

# Demystifying Your Balance Sheet

Take a deep dive into understanding balance sheet terminology and its application. **By Noel Flynn**

**T**HIS IS THE 21ST ARTICLE IN THE “TOOLS FOR MANAGING YOUR Business” series. When it comes to understanding the two primary financial statements, many business owners and managers seem to struggle most with the balance sheet. If you have not yet read the previous article in this series (“Demystifying Your Income Statement” in the April issue of *Keynotes*), you should read that article first before proceeding with this one. As a business owner or manager, it’s imperative that you have at least a basic understanding of your two primary financial statements. No, you don’t have to have a degree in accounting, but — as I’ve said many times before — if you’re going to play the business game, you should be familiar with how the score is kept. Would you seriously consider playing a card game such as poker if you didn’t know the rules or how the winning hand was determined? I think not!

If your business is not incorporated (such as a sole proprietorship), you may not be familiar with these financial statements. That’s because when filing your annual personal tax return, you simply complete a Schedule ‘C’ form (aka Profit or Loss From Business) that lists your business-related income and expenses. If you don’t have inventory or if you run your business on a cash basis of accounting (rather than accrual basis), financial statements (especially a balance sheet), will likely be perceived as less important.

This article is written for those businesses that are incorporated and employing, or required to generate, financial statements. Unfortunately, many small-business owners only see their balance sheets annually, when prepared by their accountant as part of their annual business tax return. These owners are missing out on a great monthly (or at least quarterly) business management tool.

Let’s remind ourselves that there are two primary financial statements used to measure the performance of a business: balance sheet and income statement — aka profit and loss statement or P&L. (A third, statement of cash flows, will not be covered in this article). This article will focus upon the balance sheet. As with all things accounting, terminology can confuse us non-accountants. For perspective, first we’ll revisit the income statement very briefly and then move on to the balance sheet. Although the content is similar overall, the financial statement terminology used in the not-for-profit world seems clearer in some ways. Instead of

a balance sheet, we have a “statements of financial position,” and instead of an income statement, we have a “statements of activities.” We’ll be referencing the for-profit format in this article.

## The Income Statement: A One-Season Scorecard

Following is a repeat of information from our 20th article. An income statement is a one-year scorecard, sort of like one season for a football team. At the end of each season, we can see the team’s performance for the 16 regular games. But for the next/new season, we hit the reset button, and the performance scoring begins all over again. Your business generates an income statement for each month of the year, plus a cumulative set of numbers for any past monthly numbers of that same year, which is commonly referred to as “year-to-date” (YTD). Thus, we say that an income statement (or P&L) tells us what happened for a period of time, which could be one month (each game), several months (several games) or one year (the full season).

Figure 1 provides an abbreviated format for a simple, typical small corporation’s income statement, without the YTD columns.

**INCOME STATEMENT OF XYZ COMPANY**  
For the period xxx (Typically for one month. Issued for each month of the year)

<b>INCOME:</b>	(Overarching category of <u>all</u> money earned, not necessarily collected)
<u>Gross</u> Sales	\$525,000 (sales before <b>discounts</b> /returns/ <u>allowances</u> – (DR&A)
<u>Net</u> Sales	\$500,000 (services <b>and</b> /or products you sold, less DRA)
Less Cost of Sales (COS)	-\$300,000 ( <i>direct</i> costs incurred, such as labor and materials)
Gross Profit	\$200,000 (net sales, less cost of sales (COS))
Gross Margin %	40% (percentage of <u>gross</u> profit from those sales)
<b>EXPENSES:</b>	Overarching - <u>all</u> <i>indirect</i> expenses <i>incurred</i> , not necessarily paid
Sales and Marketing	Your sales and marketing expenses (add subcategories)
General and Administrative	Your general and administrative expenses (add subcategories)
<b>Operating Expenses</b>	All <u>sales</u> , <u>general</u> and <u>administrative</u> (SG&A) expenses incurred
<b>Income From Operations</b>	Gross profit, less operating expenses
<b>Other Income:</b>	
Interest Income	Interest, possibly from a savings account or CD
Rental income	Possibly rental income from your tenant
Total Other Income	Your total “other income” from all sources (a catch-all)
<b>Other Expense:</b>	
Other Expense	Some other expense(s) of a miscellaneous nature
Income Taxes	Everyone’s favorite
Total Other expense	Your total “other expense”
<b><u>Net</u> Income</b>	Gross profit, less all expenses. If a loss, the number is usually in brackets.

**Figure 1.** This is an abbreviated format for a simple, typical income statement of a small corporation.

This typical income statement header format enables us to know that we are looking at the company’s performance for the month/period of, let’s say, March. If our sample format included the traditional right-side column (not shown), we could also see performance for the year-to-date (YTD) first quarter (cumulative three months of January + February + March). If this were our P&L for the month of December (instead of March), that YTD right side column would typically represent the cumulative numbers for all 12 months of that year. In addition to the

dollars listed on each line, a “percent of sales” (%) is also commonly listed in both the right and left columns.

So, what happens to this P&L business’s performance scorecard (as measured by profitability, rather than touchdowns) at the end of the year? In simple terms, the end result (bottom line, net income or loss) migrates over to the company’s balance sheet, which, unlike the P&L, represents a cumulative snapshot of the company’s financial position/condition at a date, or moment in time.



## Our Sports Analogy

In our football analogy, a quarterback player would establish a “total number of touchdowns” or “total number of passing yards.” For a running back, it would be “yards per carry.” Essentially, these are measures of their performance. Each player would have a performance score record for every game, a cumulative record for all games played thus far during the season and, ultimately, at the end of each season. As we’ve discussed, this is similar to how our income statement works because it covers performance for a period of time (one season), which can be thought of as a one-year business season. For the new/next year, that seasonal record resets and begins anew.

However, if we want or need to know how a player has performed on a cumulative basis — perhaps for several years or over a career — we need to look at his/her lifetime professional record, from when they began through the most recent period. Thus, instead of looking at a one-season record (income statement equivalent), we need to look at the cumulative performance picture (balance sheet equivalent). The balance sheet covers the financial position/condition of the entity as of a moment in time or specific date, rather than performance for a season or period of time. For instance, we could say that Tom Brady just won the Super Bowl for the 2020 season (think income statement), but he has also amassed the best all-time record (think balance sheet) for Super Bowl wins, among other achievements. This is why he is referred to as a GOAT, or “Greatest of All Time.”

## Your Personal Income Statement

Although not an ideal analogy, let’s forget about business and make believe you have a regular job and work for wages, where you might have to tolerate working for a boss just like you! I know, perish the thought! We’ll use your personal 2020 tax return to reinforce some of the key points, especially timing. Yes, I know, most of us would prefer to forget this particular bad boy and any reminders of all the 2020 virus stuff. On a fundamental level, this one-year tax return is sort of like your financial performance scorecard for the season/year of 2020.

You’ll be recording how much money you earned in 2020 (mostly wages) and whichever expenses or deductions you are permitted to take that will reduce your taxable income. When you calculate what you earned (wages, interest income, dividend income, etc.) and then subtract the allowable deductions and credits etc., you will have a number that represents your “adjusted income” and, finally, taxable income. That’s the number used to determine your tax rate and how much you owe or any refund you may have earned by overpaying. Gen-

erally speaking, you begin all over again for tax year 2021, and this is the same timing principle as your income statement for your business. The business details are more complicated, but don’t worry about that for now. It’s far more important that you grasp this “time period” difference between income statement and balance sheet.

## Your Personal Balance Sheet

One of the best and most relatable ways I’ve found to explain the balance sheet concept is by building our own personal balance sheet. Forget about the business stuff for just a moment and concentrate upon our personal financial situation. Let’s say that you are going to apply for a loan (perhaps a mortgage for your home), or maybe you just want to see how you’re doing with building your personal wealth (net worth) or how much more of your lunch money you need to save to make *Fortune*’s “World’s Richest People” listing.

Whether you use a bank’s form(s), place your numbers in a spreadsheet or just scribble on the back of an envelope, the basic idea and calculations should be the same. Let’s keep this very simple so we can focus on the concept rather than the numbers or jargon. On a foundational level, there are three parts to this process. As of a certain date in time:

1. List the things that I “own” (some prefer to say “have,” “possess” or “hold”) and calculate their respective numbers.
2. List the things that I “owe” to others and calculate their respective numbers
3. Formula: (1) minus (2) = (3) **Calculate the difference.** What I am *worth* financially is my equity.

No, this has nothing to do with that time your boss referred to you as “completely worthless.” Let’s think about this in simple logical terms. You may “own” your house (you and your BFF silent partner, the bank or mortgage company), but you likely owe a balance on your mortgage.

House market value	\$450,000	an asset (what you <u>own</u> or have or possess)
Less mortgage balance	\$120,000	a liability (what you <u>owe</u> to others)
<hr/>		
<b>Difference</b>	<b>= \$330,000</b>	<b>equity (your <u>net worth</u> financially)</b>

If you did not have any other assets or liabilities, we could say that your net worth is about \$330K. Congratulations! You have



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essentially just completed your personal balance sheet, albeit an oversimplified version. But, seriously, that's the concept for both personal and business — that's it!

Many will recall the crash of 2008-2012, when the housing bubble burst and millions of homeowners found themselves “under water,” meaning they owed more on their mortgage balance than their houses were worth, if they could even find a buyer. If you were indeed under water, you would be said to have a “negative net worth” or “negative equity,” but let's not get hung up on the jargon. I realize that we might not get our listing price and if we successfully sold our house, we would have to pay some selling expenses such as painting the house and a realtor's brokerage fee. But let's not complicate this for now. We could also use the relationship between your car and your car payment as another example. So far, so good.

## A More Complete Personal Balance Sheet

As we've discussed, these numbers change frequently, so we include a header indicating that these balance sheet numbers represent our (Mr. or Ms. X's) financial situation *at a certain date or point in time*, rather than for a *period of time*. For simplification, I am taking a few liberties in *Figure 2* and will have to beg forgiveness from the accounting gods, or possibly even sacrifice a few chickens.

Notice that on the bottom of the right-side column, the last number (\$750,000) equals the last number on the left side column. This is because the balance sheet must be in balance. That's based on the accounting equation **Assets = Liabilities + Worth**. Many accounting courses begin with

this equation stuff. I think it turns people off, but we should at least mention it since it is the foundation for a balance sheet. OK, now that I've reluctantly mentioned it, my conscience is clear.

You can see this by looking at the “total assets” number of \$750,000 on the bottom of the column on the left. Then, on the right-side column, we need to add the “total liabilities” (\$425,000) to the equity (\$325,000) for a total of \$750,000, to be in “balance” with the “total assets” number of \$750,000. Again: What I Own (or have, possess) less What I Owe = Equity, or what I'm worth financially.

Matters get a bit more complicated when we develop a balance sheet for our business, but that's primarily because of accounting terminology, conventions, categories, subcategories and established formats. The underlying principles and concepts are similar.

Pause now and re-read the previous section(s) until you have a logical feel for what has been covered and are ready to move forward.

You'll notice that the header categories (Assets and Liabilities) are positioned side-by-side (horizontally) in our illustration to emphasize the relationships. However, because of space limitations, typical business balance sheets are formatted in a vertical format. In other words, assets on top, followed down the page by liabilities and, finally, equity at the bottom. Year-end detailed balance sheets may require more than one page and often feature two columns of numbers: one for the current year just ended and the other for the previous year so you can compare changes between the two years.

### ASSETS: What you own\*\*\*

Cash  
Retirement plan (401k or IRA)  
Money your brother-in law owes you  
House, at market value  
Car  
Household goods/furnishings  
Other

---

Total - all **Assets** = \$750,000

\*\*\* includes what's owed to you

---



---

**Total – All Assets = \$750,000**

### LIABILITIES: What you owe to others

Bills owed (maybe credit cards) not yet paid  
Tax liability when you withdraw 401K/IRA  
Kiss this one goodbye, if he's a deadbeat  
House mortgage balance  
Car loan balance  
Cost of selling/turning into cash  
Other

---

Total - all **Liabilities** = \$425,000

---

**Equity: aka Net Worth = 325,000**  
(assets, less liabilities)

---



---

**Total Liabilities and Equity = \$750,000**

**Figure 2.** This provides a more complete personal balance sheet.



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## Your Business's Balance Sheet

We should mention that your business's balance sheet features categories and subcategories of assets and liabilities. Assets are usually listed in an order that begins with "cash," followed by what economists refer to as "near cash" or "cash equivalents." In other words, those assets that can hopefully be converted into cash (short-term) quickly, or at least within a one-year period. I'm reminded of this old joke: "When you ask five economists for an opinion (or forecast), you'll likely get at least six answers."

### Current Assets

You'll recall that in our personal balance sheet example, we included such things as cash, house and car because these are things that you own. In your business, you'll likely have such things (assets) as cash, accounts receivable (A/R) and possibly inventory. These categories are referred to as "current assets" because they are generally expected to be converted into cash (if not already cash) within the current short-term business cycle, which in accounting speak means one year.

You may have noticed that although it's not cash, accounts receivable (A/R) is included in the current assets category because as customers pay our invoices, our A/R is reduced, and cash is increased. Similarly, our investment in inventory is expected to be sold at a profit, invoiced to customers, become part of our A/R and, ultimately (as our invoices get paid), converted into cash.

As we have discussed, at the end of the day, liquidity matters.

Another less-understood category of current assets is called "prepaid expenses." The best way to explain this is by example, but first we need to understand that one of the accounting principles is "the matching principle." This means that to have reliable financial numbers, we need to "match up" or include all income, costs and expenses for the same period. As you'll appreciate, leaving out any piece of this would result in a lopsided picture. In other words, reporting all of the sales for March but only 80% of the expenses would clearly be misleading.

A very common example of prepaid expense would be when we pay for a life insurance policy premium (often in advance) for an entire year. Essentially, this means that we incurred an expense for 12 months in the future, thus the term "prepaid." To make a long story short, the matching principle requires that we "park" this expense on the balance sheet and then basically apportion 1/12th to each month of our P&L as the fiscal (financial) year unfolds.

A second common example would be where we paid a 50% deposit to exhibit at a trade show. Although this trade show is held next year, we were required to make a 50% down payment or deposit this year at the time of registration to lock in our space for next year. Again, we have paid for a service in advance and thus "prepaid" the expense.

Let's look at *Figure 3* to see our current assets (and other categories of assets) as they would appear on our business's balance sheet.

#### BALANCE SHEET | XYZ COMPANY | As of \_\_\_\_ month and \_\_\_\_ year

#### ASSETS:

Cash & Equivalents	(Probably primarily money in our business checking account)
Accounts Receivable	(Money customers owe us for services rendered. Becomes cash when paid)
Inventory	(To be sold at a profit, become A/R and when paid, then increases our cash)
Prepaid Expenses	(Future bills that we paid in advance, partial or complete)

<b>Current Assets</b>	(Stuff we own/have, expected to be converted into cash within one year)
-----------------------	-------------------------------------------------------------------------

Some of our inventory may not be sold, and we'll be replacing some or all of what is sold. Some of our A/R may not be collected on time, or at all. But the idea is that, theoretically, these current assets are either already cash or will be converted into cash within a one-year period. Although we won't get into it now, keep in mind that there is a sort of mirror image to current assets (you guessed it), current liabilities, where a similar timing concept applies to what we owe to others.

Following are additional categories of assets that are not expected to become cash within one year.

"Other" Assets	(Includes such typically intangible items as patents or trademarks)
"Fixed" Assets***	(Sometimes referred to as Property, Plant & Equipment (PP&E))
Less Accumulated Depreciation	(Less the amount that we have "written off" since acquisition)

<b>Net Fixed Assets</b>	(Fixed Assets, less Accumulated Depreciation = Net Fixed Assets)
-------------------------	------------------------------------------------------------------

<b>Total Assets</b>	(All Assets)
---------------------	--------------

**Figure 3.** Take a look at current assets (and other categories of assets) as they would appear on a business's balance sheet.



\*\*\* Fixed assets are/remain listed on the balance sheet at the original total acquisition cost. For example, if a factory purchased a machine for \$100K plus transportation and installation of, let's say \$15K, that machine would be included in the fixed assets category at \$100K +\$15K, or \$115K. The same would be true for purchase of a building, land (often listed as a separate line item or subcategory) and any other fixed assets. PP&E (aka hard assets) are recorded in an "asset register" so the company can keep track of investments and how much of the original cost has been written off or

depreciated. Remember, depreciation is a business expense but, unlike other business expenses, it does not require cash. If our machine had a 10-year life (as determined by the IRS), we would write off (depreciate) yearly 1/10th of our original total acquisition cost. Thus, at the end of 10 years, this machine would be said to be "fully depreciated." In other words, it's on our books at zero net value.

We have now grouped and listed our assets, by category: current, other and fixed. Now it's time to visit the opposite side of our balance sheet, better known as our "liabilities," in *Figure 4*.

## BALANCE SHEET | XYZ COMPANY | As of \_\_\_\_ month and \_\_\_\_ year

### LIABILITIES: (and Equities)

Accounts Payable	(Unpaid bills to suppliers, for goods or services rendered)
Accrued Expenses	(Debts owed but not yet paid. Common example is unpaid salaries)
Current portion of debt	(A one-year portion of some longer-term debt such as a mortgage)
Income taxes payable	(A particular type of debt obligation to the government)

---

**Current Liabilities** (Obligations we owe, expected to be due/paid by us within one year)

**Figure 4.** Take a quick look at the basics of the liabilities section of the balance sheet.

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**Accounts payable** is typically comprised of unpaid “trade” bills or invoices from our suppliers for items such as inventory or materials that we purchased on credit. This could also include our utility bills and other operating expenses that have been incurred (we’ve already received an invoice or bill) but not yet paid.

In accounting speak, the term “accrued” or “accrual” just means that we are “accumulating” some incurred expense that has to be paid by us at a later date. The accrued expenses category on the balance sheet in smaller companies is often primarily wages (and also earned but unused vacation) that have been earned but not yet paid or used. Perhaps the best way to think of this is that a business will typically pay wages on a payroll cycle, which is usually weekly for hourly workers and may be either weekly or on some other longer cycle for salaried employees. You can appreciate that since wages are not paid in advance or daily, at least some of the work has already been provided by employees prior to the paycheck (or electronic direct deposit) being issued for the payroll period. To recognize this unpaid payroll obligation, we “park” that amount in the accrued liabilities account on our balance sheet until it’s been paid. There are some other kinds of unpaid bills that are also parked in this balance sheet account.

The “current portion of debt” category is simply a place to separate and reflect that portion of our debt that’s due within one year, or short term. A common example would be where

our company has a 20-year mortgage note obligation, but we reflect only one year or 1/20th of that debt as “current.” This goes back to the matching principle of accounting where we are trying to match up financial activities for a period to determine our position/condition for the same period of time. If we either did not reflect *any* of this 20-year note or if we reflected *all* of this 20-year note in one place, the presentation would be misleading. The answer is to reflect only the current portion of this 20-year note in the balance sheet liabilities category, which has been created specifically for that purpose. Current portion of debt is sometimes called “current portion of long-term (LT) debt.” As you will see later on, we have a separate liability category for the reciprocal of this current portion of debt, which is a separate category known as “long-term debt.”

Our “income taxes payable” liabilities category is set aside to separate and reflect what we owe to the government, since this obligation is typically paid quarterly. It’s the same idea as our earlier discussion related to the accrued expenses category, but it must be listed separately. As with the payroll concept, we are incurring a tax liability every day as we generate profit but have not yet paid that obligation. Thus, we “accumulate” (accrue) and reflect what we owe until we pay the government each quarter. Then, as with payroll, we begin the cycle all over again for the next quarter and finally settle up any differences at year end or when paying our taxes. Let’s repeat our current liabilities section and then, move on down the balance sheet in *Figure 5*.

**BALANCE SHEET | XYZ COMPANY | As of \_\_\_\_ month and \_\_\_\_ year**

**LIABILITIES: (and Equities)**

Accounts Payable	(Unpaid bills to suppliers, for goods or services rendered)
Accrued Expenses	(Debts owed but not yet paid. Common example is unpaid salaries)
Current portion of debt	(A one-year portion of some longer-term debt such as a mortgage)
Income taxes payable	(A particular type of debt obligation to the government)

**Current Liabilities** (Obligations we owe, expected to be due/paid by us within one year)

As we move on down the vertical balance sheet format, we encounter other categories of liabilities. Accounting conventions require that these categories be separated primarily because they represent somewhat unique characteristics that have important implications. The category order that follows, reflects a common and generally accepted accounting format, although this can become more detailed and complicated, as in the case of large publicly traded companies.

Long-Term Debt	(Portion of debt due longer/later than one year)
Capital Stock	(Original start-up, plus any later amount of investment by owners)
Retained Earnings	(Cumulative <i>net</i> income, less any dividends paid to shareholders)

**Shareholders’ Equity** (Investments plus earnings, minus losses or dividends distributed)

**Total Liabilities and Equity** (Must equal Total Assets)

**Figure 5.** The lower (Liabilities and Equity) sections of the balance sheet are shown.



## Category Terms and Examples

Next, let's discuss these new categories and consider some examples. **Long-term debt** is the liabilities category where we reflect and park our total debt, less that portion that we already previously reflected and parked under "current portion of debt."

**Capital stock** is where we reflect the amount of owners' original start-up, plus any further investment in the company. Such ownership (aka stockholders' or shareholders') is also commonly expressed as the type and number of shares owned and by each owner, as it relates to all of the issued shares outstanding. Thus, a shareholder owning 51% or more of the outstanding voting stock is said to have/hold a controlling interest.

**Retained earnings** is the balance sheet category where we reflect and park all the companies' prior net income or earnings. When we discussed our income statement (which covers a one-year period... remember our football season analogy), we mentioned that after each year, the income statement "resets" and begins anew for the next/new season or year. We also discussed where the net income goes if we reset each year: The answer is our "retained earnings" category on the balance sheet. However, if the company elected to issue dividends to its

shareholders, any such distribution would reduce our retained earnings. A very important point here is that our retained earnings is *not* a pot or pile of cash.

**Shareholders' equity** is the balance sheet category where we reflect or park the cumulative net amount of investment, plus earnings. Any losses or dividends distributed to shareholders will have reduced the retained earnings and thereby indirectly reduced shareholders' equity.

Think about it this way: When the company was formed, the owners invested money (capital) for the start-up and perhaps even more funds later, until the business began to generate a profit and sufficient cash to function and thrive. Since the company (a corporation) is a separate legal entity, the company technically owes the owners/investors. Unlike a mortgage note, this obligation is represented by shares or stock in the company, or ownership. In the beginning, the company has likely not reached a break-even point, let alone achieved a profit. Hopefully, as the company grows, profits will be generated and there will be sufficient cash to operate successfully. In publicly traded companies, investors buy shares and hope for one or two things: 1) increase in the value/price of those



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shares and/or 2) possibly to receive dividends (portions of profits distributed to shareholders). Dividends are typically taken as either checks or reinvested to purchase additional shares.

In addition to the original start-up and any later capital investments, as the company's net income increases each year, this will cumulate over the years to increase the retained earnings. But if the company incurs losses or distributes any dividends, these activities reduce or dilute the retained earnings. Notice that the nomenclature is not "earnings" but rather "retained" earnings because it's a cumulative "net" number.

In *Figure 6*, take a look at what a summarized business's balance sheet might look like, including some numbers.

## Conclusion

The balance sheet is one of the two primary financial statements that you'll need to manage your corporate business and comply with taxing authority requirements. Whereas the income statement (P&L) keeps score of performance for a one-year period (like a football season) and then resets all over again for the next year, the balance sheet provides a cumulative picture

BALANCE SHEET   XYZ COMPANY   As of December 31, 2020		
	<u>2020</u>	<u>2019</u>
<b>ASSETS:</b>		
Cash & Equivalents	\$100,000	\$90,000
Accounts Receivable	\$200,000	\$190,000
Inventory	\$80,000	\$70,000
Prepaid Expenses	\$30,000	\$30,000
<b>Current Assets</b>	<b>\$410,000</b>	<b>\$380,000</b>
<b>Other Assets</b>	<b>\$50,000</b>	<b>\$55,000</b>
Fixed Assets - (PP&E)	\$500,000	\$500,000
Less Accumulated Depreciation	(\$250,000)	(\$240,000)
<b>Net Fixed Assets</b>	<b>\$250,000</b>	<b>\$260,000</b>
<b>Total Assets</b>	<b>\$710,000</b>	<b>\$695,000</b>
<b>LIABILITIES:</b>		
Accounts Payable	\$125,000	\$112,000
Accrued Expenses	\$20,000	\$23,000
Current portion of debt	\$25,000	\$25,000
Income taxes payable	\$50,000	\$50,000
<b>Current Liabilities</b>	<b>\$220,000</b>	<b>\$210,000</b>
<b>Long-Term Debt</b>	<b>\$200,000</b>	<b>\$225,000</b>
Capital Stock	\$50,000	\$50,000
Retained Earnings	\$240,000	\$210,000
<b>Shareholders' Equity</b>	<b>\$290,000</b>	<b>\$260,000</b>
<b>Total Liabilities and Equity</b>	<b>\$710,000</b>	<b>\$695,000</b>

**Figure 6.** A full balance sheet might look something like the above.



of the company's financial position/condition, as of a particular date or moment in time. In other words, the cumulative net results of previous years' profits or losses will appear on your balance sheet as retained earnings, under the equity section. It may be helpful to consider that the income statement and balance sheet equivalents for not-for-profit companies are "statements of activities" and "statements of financial position" respectively, which may be clearer descriptions but are essentially the same concept.

The balance sheet is comprised of three primary sections: assets, liabilities and equity. Assets are grouped into current, other and fixed. Current assets are listed in subcategories, beginning with cash and then in order of their likelihood of being converted into cash within one year. "Other assets" is a category for intangible assets (aka soft assets) such as patents and trademarks. Fixed (aka hard assets) assets are tangible assets such as property, plant and equipment (PP&E).

The liabilities section is comprised of current liabilities, long-term debt (LTD), and shareholders' equity. Current liabilities are listed according to the type of organization you owe money to. Essentially, whom you owe the money to, by standard subcategories. LTD is for recording debt such as mortgage notes, less the portion that is due within one year, which has already been recorded under current liabilities (current portion of LT debt).

The equities section is comprised of capital stock and retained earnings. Capital stock represents the owners' initial start-up money, plus any additional future investments. Retained earnings represents the cumulative amount of net income ("earnings" from prior years), less any dividends the company may have distributed to shareholders. Remember, we discussed

that at the end of each year — since the annual income statement resets and begins anew for the new/next year — we park the net income (or loss), in the retained earnings section of the balance sheet.

The entire balance sheet structure is based on the accounting equation:  $\text{Assets} = \text{Liabilities} + \text{Worth}$ . Both sides of the balance sheet must balance (be the same number).

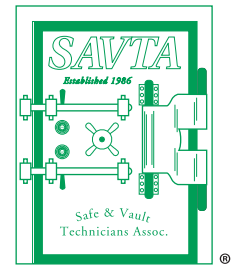
What your business owns (aka has, possesses), less what your business owes others, equals your business's equity or worth.

Hopefully you are now more comfortable, having absorbed the basic concepts in this article and achieved at least a rudimentary understanding of a basic corporate balance sheet. Even if your business is not incorporated, you can develop basic financial statements with or without help from your accountant or tax preparer. Such statements are useful and informative tools that, as a business owner or manager, you should avail of. Don't be intimidated by the terminology; every industry has some. Best wishes for success.

The next article in this series will discuss why your business needs a mission statement and how to write one. ☺



**Noel Flynn** is a degreed business management consultant with global senior leadership experience, including more than 20 years in manufacturing, wholesale distribution and consulting sectors of the security industry. Noel has been a senior executive, officer, board director and adviser to not-for-profit and for-profit companies in numerous industries worldwide. This includes being an ALOA SPAI board member since 2011, and he is also an ACE instructor, developing and teaching business management. Contact him at [nflynn@aloa.org](mailto:nflynn@aloa.org)



# Making a Key for an Antique Safe

Using a key from another project,  
**Dennis Cassidy** gets the job done.

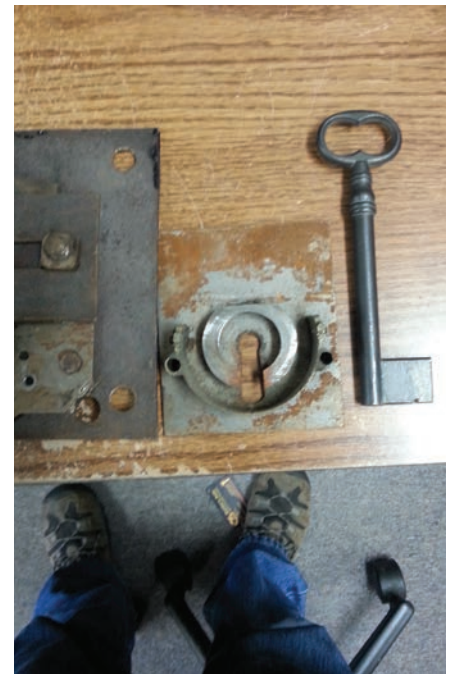


**Figure 1.** Working in my shop one afternoon, my friend George (most of you know George if you have attended SAFETECH) entered dragging what looked like scrap metal. George had just come from opening a safe, and his customer wanted a key to another safe he was looking to restore. George told his customer he had someone who might be able to make him a key, hence the piece of scrap metal.





**Figure 2.** The scrap metal, in reality, was the safe's key lock. I told George finding a key could be a problem. It just so happened I had a key from another job where I had to fit a key to a safe.



**Figure 3.** We agreed on a price, and I got to work. I first separated the lock into two pieces so I could mark the key in stages.



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498-3103	CO-100-CY-70-KP-RHO-626-JD-LFIC-RH



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**Figure 4.** The key was filed flat and cut to fit the lock opening. Putting tape on the key blade allowed me to mark the wards I would need to cut into the key blade, which would allow the key to operate the lock.



**Figure 5.** Intersecting points marked on the key blade were where I needed to drill holes so I could cut or file the wards as needed. I found a small, round metal-cutting saw blade on the internet that let me cut the wards. The saw blade was spiraled and very sharp. It allowed me to take one end bracket off so I could place the saw blade into the hole drilled at intersecting points in the key blade and then replace the bracket. With the saw blade in place, I was able cut horizontal and vertical wards in the key blade.



**Figure 6.** Next, I finished up the wards with a very thin file using the smoke-and-file method, only I used a black Sharpie pen, which doesn't rub off as easily as smoke. I inserted the key as if impressing and filed where necessary. Being persistent, I got a working key.



**Figure 7.** The last picture is of the safe George's customer refurbished. I would later learn that it was a Hobnail Safe. 🐼



**Dennis Cassidy** has owned and operated Green Mountain Safe LLC in Middlebury, VT, since 2009. He has been a member of SAVTA since 2010.

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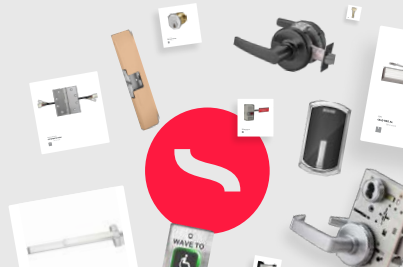
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# A LOOK AT MASTER RING CYLINDERS

Good buildings deserve good hardware.

**By Richard Howard, AAADM, CFDAI,  
CPL, DHC, DHT, ICPL, IQP**

**T**HE MASTER RING CYLINDER CONCEPT — A CYLINDER WITH TWO SHEAR lines, both capable of operating the lockset, most recognizable by P.F. Corbin designs — is unique in the world of commercial builder hardware. There is relatively little information available on the subject. This is remarkable given the fact that the cylinder has existed for more than 130 years, invented (or perhaps discovered) just three decades after the patenting of the modern pin tumbler cylinder by Linus Yale Jr.

I have spent the last 30-plus years working in the door and hardware industry, and like most of you, I was pinning locks very early in my hardware career. However, my industry experience and exposure to the greater world of locks, doors and hardware provided all but zero practical exposure to or experience with the master ring cylinder. After taking the time to study the cylinder, I truly wish I had more exposure to it sooner.

The master ring is a remarkable invention that addresses the shortcomings of single shear-line cylinders. It also solves a number of keying problems before the problems that plague locksmiths and end users today were even considered as such — most notably, the ability to provide a master-keyed cylinder without key interchange.

## History

In the late 19th century, the master ring was patented (patent #414,720; see *Figure 1*) by New York City locksmith Edward O’Keefe (who had another very interesting cylinder of a bicentric type, which can be reviewed under patent #582,367). It was intended to prevent unwanted cross-keying combinations inherent in master-key systems, and he assigned the patent to P.F. Corbin Lock Company. The master ring cylinder, when in a mortise cylinder configuration, is also known as a “jumbo cylinder.” It’s 1½” in diameter to accommodate the plug, master ring and the portion of the cylinder that contains the springs and top pins. Mr. O’Keefe’s

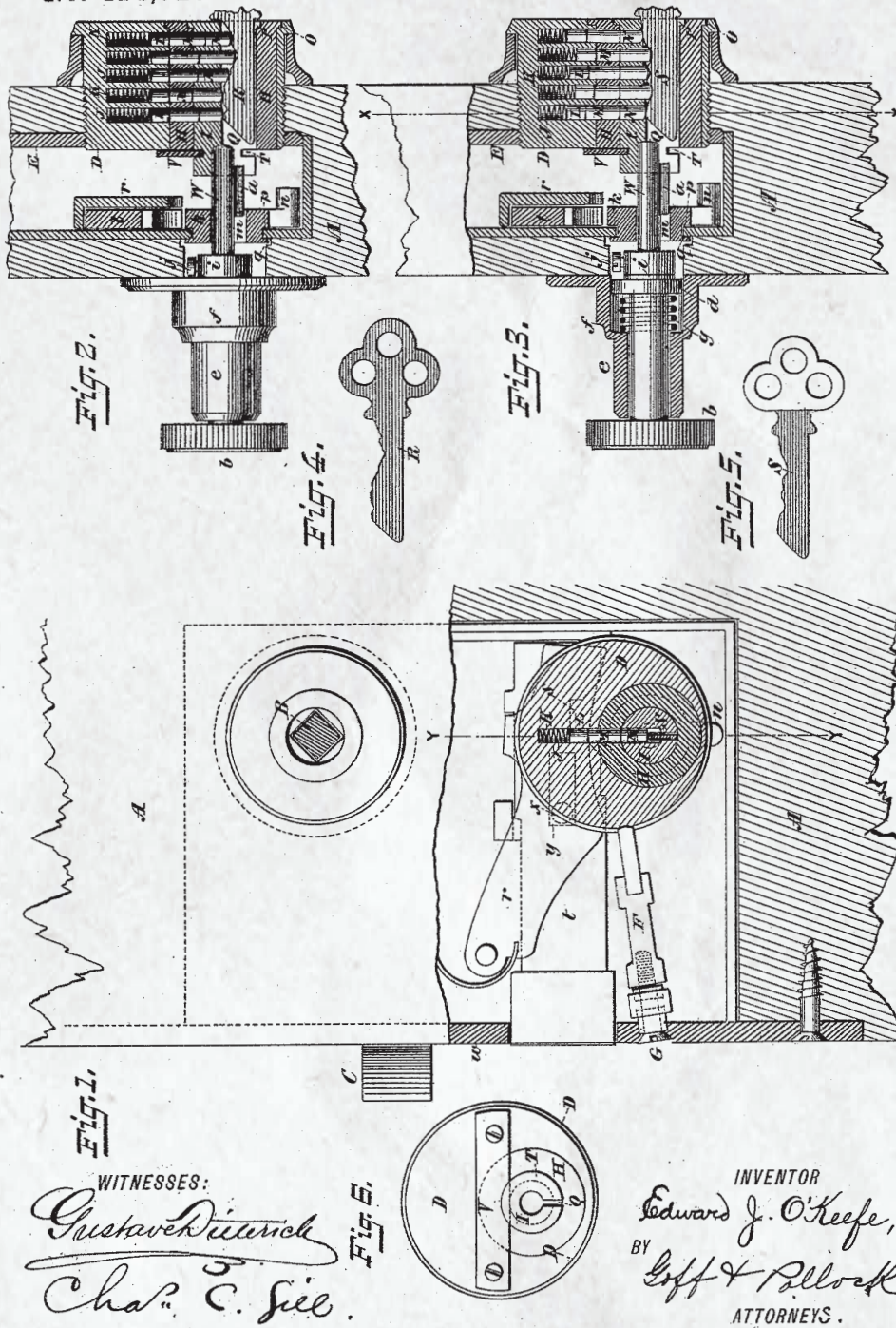


(No Model.)

E. J. O'KEEFE.  
LOCK.

No. 414,720.

Patented Nov. 12, 1889.



R. PETERS, Photo-Lithographer, Washington, D. C.

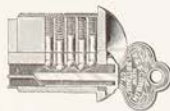
Figure 1. In the late 19th century, New York City locksmith Edward O'Keefe patented the master ring.

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Corbin Master Keyed Locks are Master Keyed in one set of any number of changes, all different, with a Master Key to pass, or in any number of sets of any number of changes, all different, with Master Keys to pass each set and a Grand Master Key to pass all.



Sectional View of  
No. 253 Cylinder



No. 250



No. 251



No. 252



No. 253. 1 1/4 IN.



Sectional View of  
No. 253 1/2 Cylinder



No. 250 1/2  
Master Keyed



No. 251 1/2  
Master Keyed



No. 252 1/2  
Master Keyed Size



No. 253 1/2. 1 1/2 IN.  
Master Keyed

## UNIT LOCK CYLINDERS

NUMBER	CAST BRONZE	Each
250	Polished	
250 1/2	"	

## RIM LOCK CYLINDERS

### CAST BRONZE

NUMBER		POLISHED	R FINISH	SR FINISH	F FINISH ‡
251	Each				
251 1/2	"				

## DUMMY CYLINDERS

### CAST BRONZE

NUMBER		POLISHED	R FINISH	SR FINISH	F FINISH ‡
252	Each				
252 1/2	"				

## MORTISE LOCK CYLINDERS

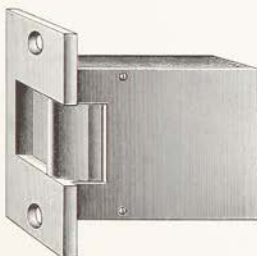
### CAST BRONZE

NUMBER	INCH		POLISHED	R FINISH	SR FINISH	F FINISH ‡
253	1	Each				
	1 1/4	"				
	1 1/2	"				
	1 3/4	"				
	2	"				
253 1/2	1	"				
	1 1/4	"				
	1 1/2	"				
	1 3/4	"				
	2	"				

State length

# ELECTRIC DOOR OPENERS

## CAST BRONZE



No. 630

NUMBER	FOR LOCKS		POLISHED	R FINISH	SR FINISH	F FINISH ‡
630	Nos. 560B, 561B, 1334B, 1339B, 01339B, 564B, 567B, 0567B, etc.	Each				
631	Nos. 2020, 2038, 2039, 02039, 2058, 2061, 2062, 2062 1/2, 2063, 2063 1/2, 2064, 2066, 2067, 02067, etc.	"				

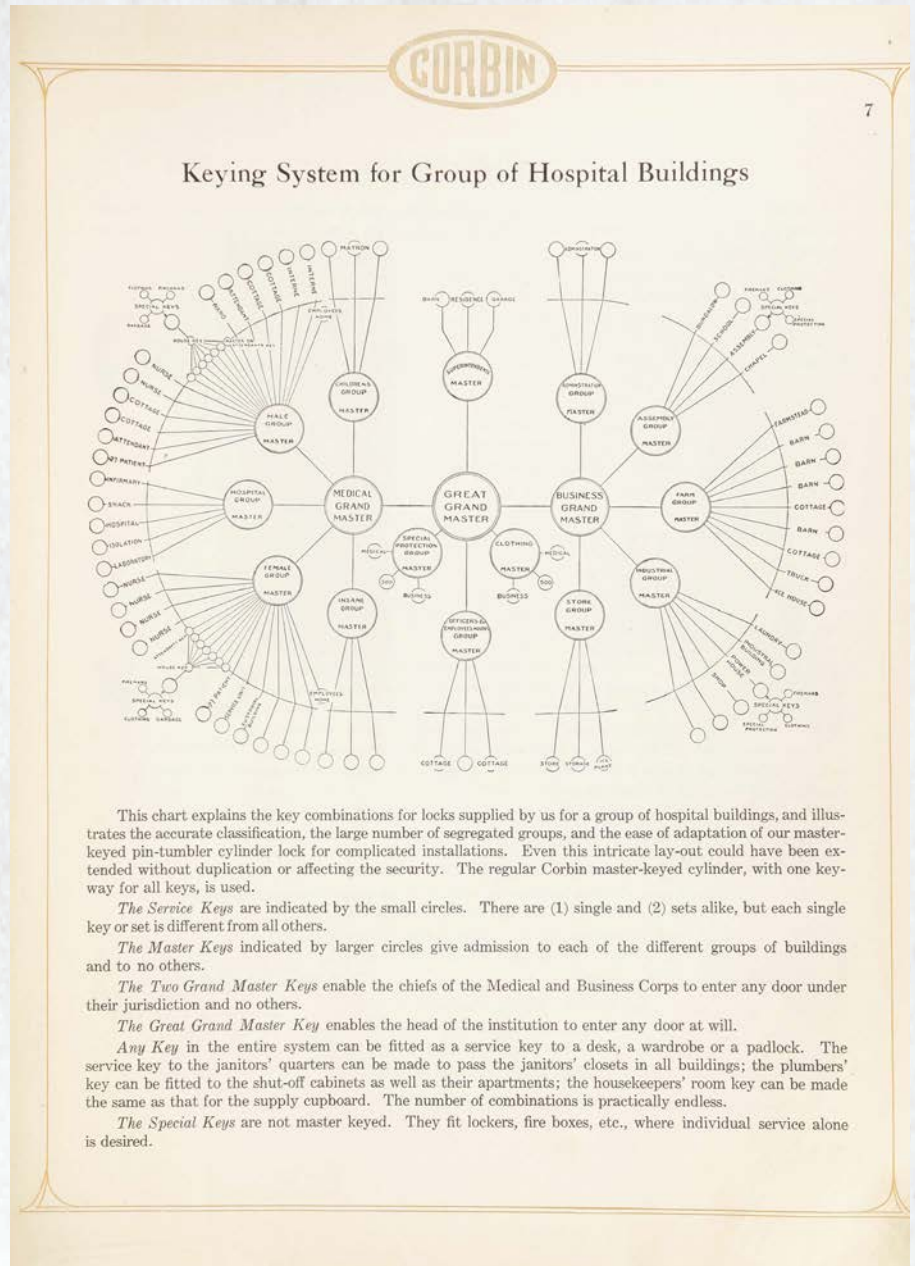
Prefix letters for finish. Description of finishes, page VI ‡ Rustless iron

Door Openers, One in a Box, with Screws

Figure 2. The earliest direct reference to master ring that the author found is in the product catalog from 1905.



Corbin does not specifically mention the larger cylinder diameter but does imply this by drawing larger cylinders to represent the master ring product. Corbin offered the common single shear line pin tumbler cylinder prior to the inclusion of the master ring-type product (and even offered these cylinders alongside flat steel key, bit key lever tumbler locks, as seen in its 1895 product catalog). The company describes the function of the master ring cylinder as follows: “In a master keyed arrangement, the Master Ring surrounds the key plug. The Change Key operates the key plug, and the Master Key operates by lining up the breaks in the pins at



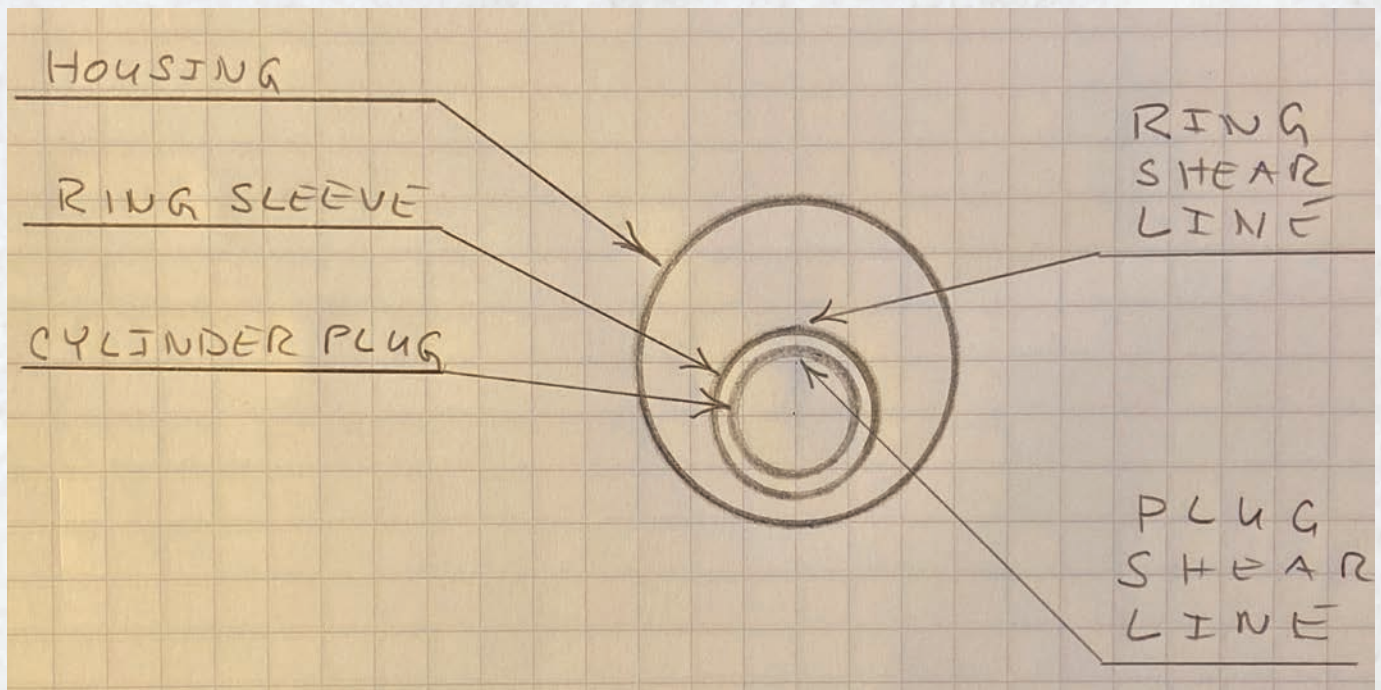
**Figure 3.** At the time of the master ring's inception, master keying theory was perhaps slightly less evolved than it is today.

the outer line of the Master Ring.” Corbin goes on to state that the above arrangement “combines in a single shell, two cylinders using the same keyway for both the Change Key and the Master Key.”

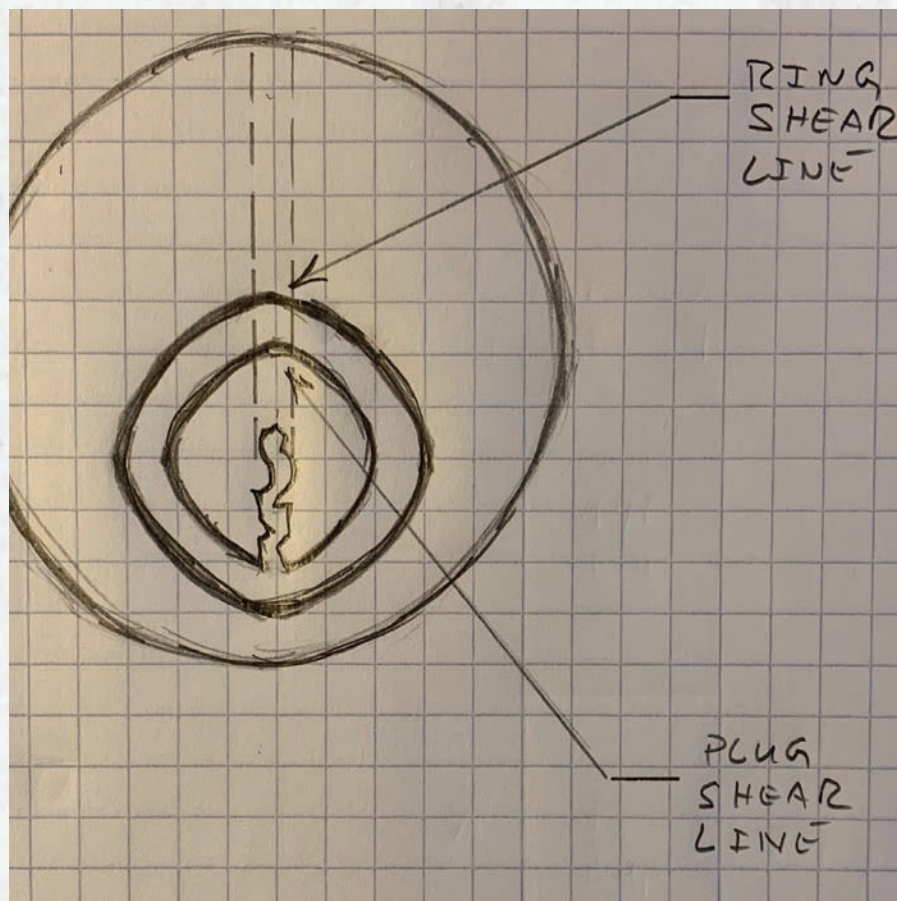
The company very clearly marketed the master ring for use when requesting master-keyed cylinders and seemed to suggest traditional single shear-line construction

for non-master-keyed requirements. This tells me the problem, or at least the threat of incidental keys was real, and given the fact that the company marketed changes as “unlimited,” it had to back that claim. This also reveals an understanding of master-keying theory as sound in its conception, although perhaps slightly less evolved (*Figure 3*) as it stands in the 21st century.





**Figure 4.** This drawing provides a cross-section view of the master ring cylinder.



**Figure 5.** This illustration shows the shear line location of the master ring cylinder.

### Principles of Design

The design of the master ring cylinder is simple and elegant (Figure 4). This cylinder design maximizes the potential bittings available in a cylinder, eliminates incidental master keys (also known as “ghost” keys) and is commonly understood, on average, as more time-consuming and resistant to picking and impressioning while not eroding the security of the cylinder whatsoever.

The master ring mortise cylinder, a 1½" diameter Grade 1 cylinder meeting ANSI/BHMA A156.5 standards, features two components capable of rotating independently of each other, creating two shear lines (Figure 5). The lower shear line is called the plug shear line, and the upper shear line is called the ring shear line. These two shear lines are made possible by the master ring sleeve (Figure 6), which surrounds the cylinder plug (Figure 7).

The master ring sleeve has a definite thickness that’s taken directly into account when pinning the cylinder to solve the ring shear line. The plug shear line





**Figure 6.** The master ring is removed from the mortise cylinder.



**Figure 7.** The cylinder plug is partially inserted into the master ring.

is created by the area at the top of the plug and the bottom of the master ring sleeve. The second shear line is created by the area between the top of the master ring sleeve and the bottom of the cylinder shell. The master ring sleeve fits inside of the cylinder shell and the cylinder plug fits inside the master ring sleeve.

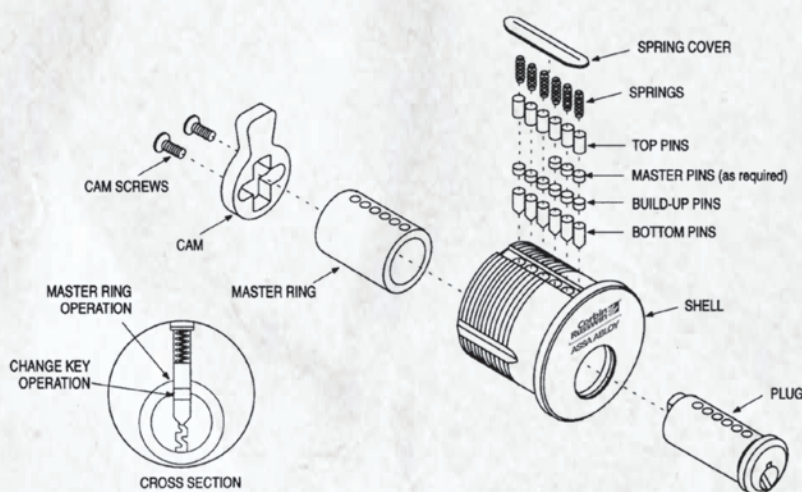
This design allows the separation of key levels, which are to be pinned separately, very much like the Yale Bicentric cylinder. The Yale cylinder was specifically intended to isolate master-key bittings from change keys and prevent key interchange.

The master ring cylinder is different in that both shear lines are within a single cylinder, which is a tenet of combining the master ring cylinder. I believe the master ring is superior, as the pin tumblers that satisfy the ring shear line are unavailable to visual review, and it's unlikely for someone to impression a key at the ring shear line. Decoding is hampered when direct access is not available.

## Combining

Having reasonable command over keying theory and the general concept of the "build-up pin" is assumed for this section. If you don't, review the master

## Master Ring



**Figure 8.** The master ring section of the CR Cylinder Manual can be helpful in understanding keying theory and the general concept of the "build-up pin."

ring section of the CR Cylinder Manual (Figure 8). We will be continuing to use the Z-Class System 70 as our reference.

Combining the master ring cylinder starts out like conventional cylinders, simple enough in that you start pinning your cylinder just as if you were pinning a Level 1 cylinder. In master ring, you first pin to the change key, which is pinned at the plug shear line. Your bottom pins

(sized 1, 2, 3, 4, 5, 6) will always match the change key bitting. No other pins are to exist in the cylinder plug when shear is created with the plug shear line and change key.

Next comes the ring shear line. This is where your build-up pin (BUP) and any master wafers will exist. These pins together will permit the TMK and any masters to operate at the ring shear line.





**Figure 9.** This is the front view of a typical master ring rim cylinder.



**Figure 10.** The rear view of the typical master ring rim cylinder is shown.

Because master ring is customarily master keyed only at the ring shear line, master wafers are usually found above the BUP in any given chamber. If master pins are found below the BUP, perhaps

the cylinder was maison pinned at the plug shear line or simply not pinned according to master ring best practices.

The new concept here is the BUP, and if you're accustomed to LFIC or Corbin

Russwin IC, it's a familiar term. To define the BUP, we need to state that the thickness of the master ring sleeve component of the cylinder assembly is equal to a BUP of 0. The master ring sleeve is either .142" or .163" thick, depending on the plug diameter. Therefore, the BUP 0 pin is either .142" for the .552" plug diameter or .163" for the .509" plug diameter.

Since the OD of the cylinder is 1½", regardless of plug diameter, the thickness of the ring sleeve must be the variable to accommodate the plug diameter in use on that cylinder. This represents the "build-up dimension." The BUP used is based not only on the bitting class but also on the system employed (System 70 or Pre-System 70). There is a full complement of BUP sizes available in the Corbin Russwin PK-1070 pin kit to accommodate any environment you are pinning in.

Our example system has 10 sizes of BUP from -4 through +5 (the '+' is not used when describing BUP longer than the 0; it's only used here for illustration purposes). In order, these would be -4, -3, -2, -1, 0, +1, +2, +3, +4 and +5. These are the same pin sizes, meaning the number and not length of the pin, for .509" and .552" plug diameter. The only difference is the actual length of each of the pins in the array, including the 0 BUP — again, based upon bitting and the system class. As an example, a +3 BUP in .509" = .247", and the +3 BUP in .552" = .226".

There are then master pins that (in our current example) would be sized 1, 2, 3, 4 and 5. BUPs and master wafers are not the same and therefore cannot be used interchangeably.

Finally, there is the top pin. For purposes of master ring, the top pin will always be .171". However, in the greater world of Corbin Russwin, the length of the top pin is also based on the class of bitting and the cylinder type being pinned. Mortise and rim cylinder front





**Figure 11.** A J415 spool pin is shown.

view (Figure 9) and rear view (Figure 10) top pin lengths, which are .171", will differ from the cylindrical cylinder top pin length, which is .090" or .099, depending on the class.

Spool top pins are usually available for the application but not for all cylinders and class applications. According to Corbin Russwin, "spool pins are used to increase pick resistance. They are available in three sizes, designated by the letter 'J' followed by the length in thousandths of an inch. They are J171, J230, J320 and J415 (Figure 11). (Four sizes are actually listed in the CR Cylinder Manual, not three.)

The J171 and J320 would be used in master ring. The J320 would be the length needed to block the master ring sleeve. The J415 would be supplied when ordering "0" bitted cylinders. Also, according to Corbin Russwin, "Do not put spool pins in all chambers. Always use a standard top pin in the back chamber to hold the plug in position until the key is fully inserted." I recently ordered a "0" bitted flexible-head cylinder, and it indeed shipped with all spool top pins.

Our combining discussion takes us to the new concept in pinning master ring cylinders. The determination of bot-

tom pin and top pin is elementary, and therefore, our focus will be in a new area. This new concept is how to determine the BUP to use. There are only two examples needed to fully illustrate the combining process. These are the Level II structure and the Level III (and beyond) structure.

The following is an example of a Level II system:

- a. Pin the plug shear line to the change key.
- b. If your TMK is a cut deeper than your change key, use a +BUP. If your change key cut is a 2 and your TMK cut is a 5, use a 3 BUP.
- c. If your TMK cut is shallower than your change key, use a -BUP. If your change key is a 5 and your TMK is a 2, use a -3 BUP.
- d. If your TMK is the same cut as your change key, use a 0 BUP.
- e. Add your top pins and springs and secure your slide cover.
- f. You're done.

The following is an example of a Level III (or beyond) system:

- a. Pin the plug shear line to the change key.
- b. Take the shallowest cut of all your MK(s)/TMK and add that BUP. If your change key cut is a 2 and your

shallowest master key cut is a 4, use a 2 BUP. If your next master key cut is a 5, add a 1 master wafer.

- c. If your change key cut is a 2 and your shallowest MK(s)/TMK is a 1, use a -1 BUP. If your TMK is a 5, add a 4 master wafer.
- d. If your shallowest MK(s)/TMK is the same cut as your change key, use a 0 BUP. Add the appropriate length master wafer if applicable.
- e. Add your top pins and springs and secure your slide cover.
- f. You're done.

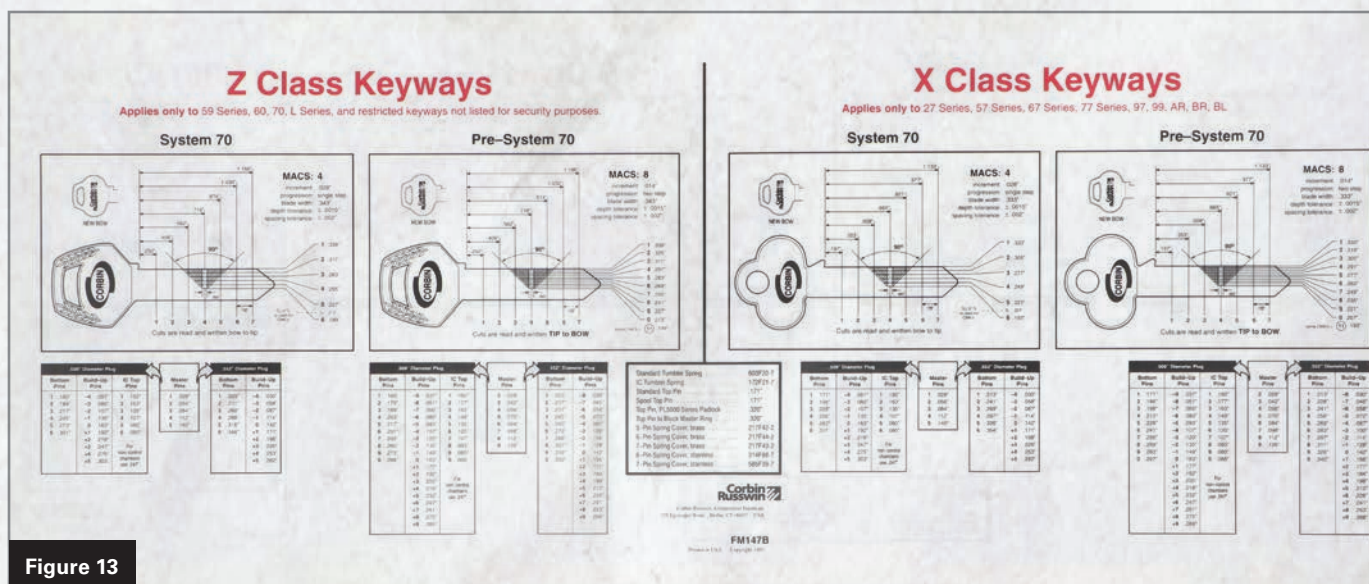
## Servicing, Service Equipment and Supplies

Service equipment is available from Corbin Russwin. The Corbin Russwin PK-1070 deluxe pin kit (Figure 12) is, according to the manufacturer, "Ideal for locksmiths and distributor service personnel who must service a variety of Corbin Russwin keying systems. Also for end users with Pre-System 70 keying systems." Also: "Contains all pins required to combine standard, IC and master ring cylinders. Accommodates System 70 and non-System 70 for both plug diameters and all key classes. Furnished in a reinforced steel case with

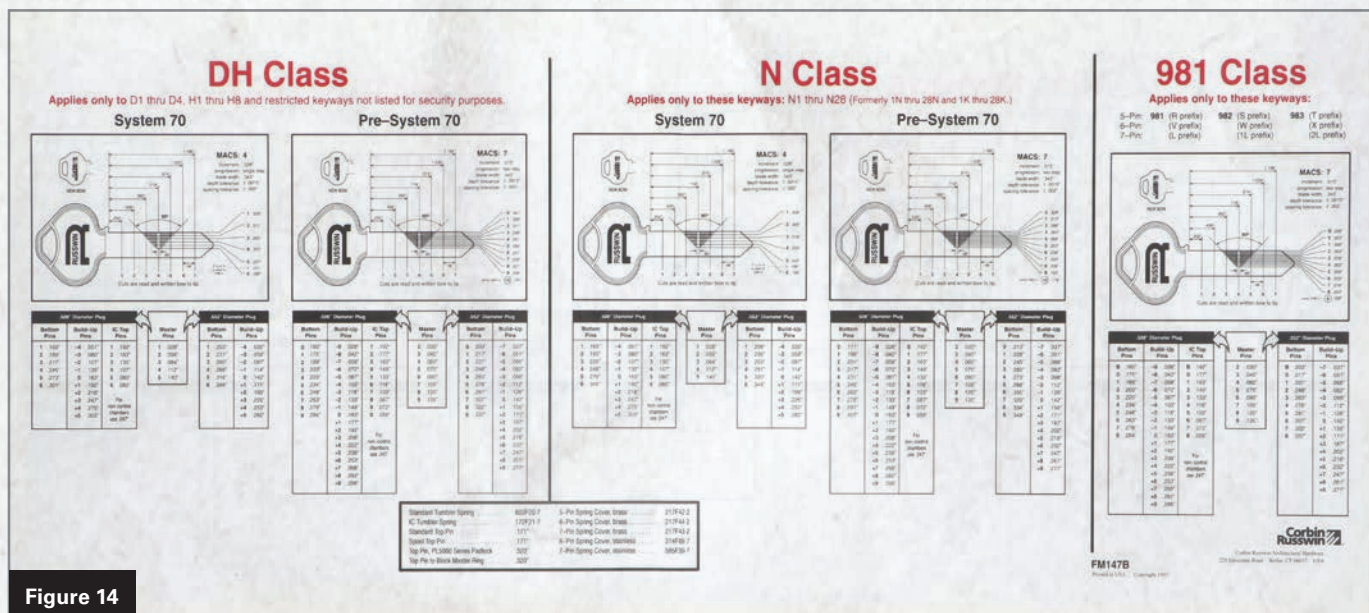


**Figure 12.** This photo shows the PK-1070 pin kit.





Figures 13-15. The pin kit contains a two-sided chart, tweezers and both diameters of plug followers.



combining instructions on the inside of the lid. A separate, removable, two-sided chart, side 1 and side 2, contains pin lengths for all modern key classes. Includes tweezers and both diameter plug followers.” (Figures 13-15)

When pinning master ring, it’s best to use factory original pins. Attempting to use a “universal” kit will reveal the lack of all the proper length pins. Finally, shimmying open a master ring cylinder

is not more or less difficult than a single shear line cylinder.

## Availability

The Master ring construction is available in mortise and rim cylinders, unit locks, mortise locks, windstorm rated multi-point locking hardware and as applied to exit device trims.

The Corbin Russwin ML2000 Series mortise locks offer master ring options in

escutcheon and sectional trim, in nearly all functions. Specify “-MR” when ordering. Master ring is also an option on ML-2000HS High Security and ML2000VR Vandal Resistant trim when “a greater degree of security and vandal resistance not found on other mortise trims” is desired.

Master ring is an option with the Corbin Russwin ED7400 series narrow stile crossbar surface vertical rod Grade 1 exit device operators.





**Figure 15**

The Corbin Russwin FE6600 Series multi-point deadlocking lock system is available fire-rated and is UL listed for windstorm compliance and is Florida building code compliant rated. It can meet tornado and hurricane shelter guidelines and be ordered with master ring as well.

Corbin Russwin offers master ring in its UT5200 series unit lock. However, only the Essex lever design is offered. Master ring cylinders can still be purchased for the discontinued CK4200 Grade 1 knob lock. This cylinder design is available in mortise cylinders of the standard, flexible head and dummy variants for use in mortise locks, multipoint and exit device trim along with rim cylinders.

The standard master ring mortise cylinder is available in 11 sizes, from 1" up to 3" in length, with five cams offered in 5-, 6- and 7-pin options, with a variety of cylinder collars (and even the wave washer) in 14 standard finishes.

The flexible-head version of the master ring cylinder is available in three sizes, from 1" length up to 1¼" length, with five cams offered and in 5- and 6-pin cylinder

lengths, with a variety of spacer collars in 14 standard finishes.

### Advantages

Some advantages of the master ring cylinder are:

1. The most substantive advantage to the master ring cylinder is the separation of your change key bittings from your master key bittings. The ability to insulate the master key bitting from your change key bittings very effectively masks the bitting of your master key(s) and your TMK.
2. The structure permits a substantially greater number of theoretical change keys available to you.
3. It physically prevents a visual inspection of the master ring shear line.
4. I understand the general consensus of the locksmith community is the master ring cylinder is inherently more difficult and, at a minimum, more time consuming to pick as a result of the two shear lines, and made even more challenging by the use of spool drivers. A highly paracentric keyway (Figure 16) will also serve to enhance the cylinder's pick resistance along



**Figure 16.** This image shows a Corbin Russwin H4.

- with restricted key blanks to make access to them less convenient.
5. It's unlikely to be successfully bumped when pinned as it was originally designed.
  6. You have access to the huge library of P.F. Corbin, Russell & Erwin, Emhart and Corbin/Russwin Key Bitting Classes. While key blanks and cylinder types are not available with some of the older bitting classes, the pool of available products is massive. For instance, the Corbin X Class developed between 1890 and 1968 and the Z class introduced in 1959 are both still active today for new keying systems. Using these legacy systems would be an advantage to continue to service an older existing installation.
  7. According to Corbin Russwin, "6-pin Master Ring keying systems offer keying capacity similar to 7-pin conventional cylinder systems."
  8. A 7-pin cylinder will yield an enormous amount of theoretical changes and, when teamed up with a multiplex



Z-Case System 70 Master Ring KBA									
MACS=4									
MK KBA SOP C e f g d a b									
TMK									
TPP = 15,625									
MK'S UNDER									
THE TMK									
15625 = 5 <sup>6</sup>									
233,280									
CK'S in									
KBA									
(6 <sup>6</sup> )5									
CK KBA SOP									
F b g c d e a									

Figure 17. This chart shows the master ring KBA developed by the author.

- structure, the boundaries are all but “unlimited.”
- There is a substantial freedom in the designing of bittings whereby you separate the TMK and MK bittings from the changes.
  - It's inherently less prone — and at the plug shear line, in most cases, fully insulated — to exposure to ghost keys. Implementing a rotating constant method when it serves the requirements of a new system only reinforces these advantages.
  - It's commercially available in an adequate diversity of hardware items, which makes for a dependable deployment of hardware on the project. Coupled with the current climate demand from the market for plenty of design and finish options

- for trim, this allows the owner to purchase beautiful builder's hardware as well.
- The technical support department at Corbin Russwin is very responsive, willing and capable to assist with application questions. However, the mechanics of physically combining the master ring cylinder might be best learned by experimentation and self-education using the CR Cylinder Manual with other sources as your guide.
- The Corbin Russwin name is ubiquitous and universally familiar to industry professionals, and the name is tried, true and trusted.

### Applications

Applications for the master ring cylinder were originally those installations

where a master or grand master, etc. key structure was specified. Every project was a candidate for master ring work — from “homes of modest proportions” to buildings of incredibly expansive proportions such as the Empire State Building or those where intricate keying requirements were required.

In today's world, I am unaware of a project that could not be accommodated because of the limitations of single shear line cylinders, but I am aware of exploitations made on large single shear line cylinder installations that a deployment of master ring cylinders would have thwarted.

Using our earlier logic, what would be better than a deployed structure of master key cylinders? One that would be more resistant to bumping, impressioning, picking and decoding, all while



providing substantially greater cylinder integrity and finally an exponentially greater degree of expansion. If you were given a choice, which would you prefer?

## Conclusions

I admire the master ring platform, its capabilities and its 120-plus years of heritage. I believe it is simple and elegant. However, my admiration may just be the twinkle in my eye for those special products in our industry that we enjoy working on and talking about.

When I asked a fellow attendee (not just any attendee, in fact — a leader, organizer and industry pillar to locksmithing) of ALOA 2019 to review my master ring KBA (Figure 17), he asked, “Why are you even writing about this? They don’t even make them anymore.” While the hardware is still available, his response forces us to focus on the actual circumstances of master ring: a lack of relevance.

The needs of the market in 1919 were orders of magnitude less detailed and exacting as are the needs of the market in 2019 and beyond, and the single shear line cylinder, its development and evolution has continued non-stop. The master ring structure has had no evolution since its inception except that it evolved out of the single shear line cylinder to stem a known weakness in that design.

Before deciding to invest in a new master ring system, the end user must analyze the needs of the system for both the current time and the future before investing in an antiquated, limited system, as measured by today’s standards.

Is it possible Corbin Russwin continues to offer master ring so it can service large, existing, decades-old installations of the master ring, and that in 10, 20 or 30 years, this cylinder will become obsolete? Certainly. Will it be remembered for the epic-scale installations it serviced for decades? Absolutely.

## Further Reading

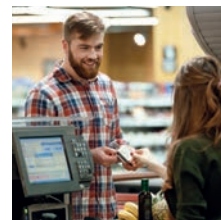
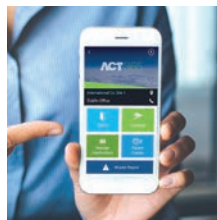
- Corbin Russwin Cylinder Manual
- *Book Three Servicing Interchangeable Cores and Master Ring Cylinders* by G.L. “Gerry” Finch
- *Interchangeable Core Cylinder Service* by Robert G. Sieveking, 2014 ISBN 978-1-935920-40-3



**Richard Howard, AAADM, CFDAI, CPL, DHC, DHT, ICPL, IQP**, has 30-plus years industry experience working in distribution specializing in hollow metal, wood doors and commercial hardware. An active member of both ALOA and DHI, he enjoys the ever-changing and challenging field of locksmithing.

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# Nightmare Mode

**Tony Wiersielis, CPL, CFDI**, explains a challenging situation on a recent job and offers a few tips and tricks.

**T**HIS MONTH, I'VE GOT SOME TIPS AND A "HOW-TO" FOR YOU. BUT THE main part of the article relates to the curious title you see above. Let me explain how I came up with it. When I was 10 years old in the late 1960s, I saw *Night of the Living Dead* at a local theater. It scared me at the time, but it kindled a love for zombies, the undead, walkers... whatever you want to call them. When *The Walking Dead* came out, I never missed a show. In fact, my ringtone is the theme from the series.

In my early teens, I was very fond of pinball, which I played at the candy store down the block. It was three games for a quarter, so a buck provided a decent amount of entertainment. For the young people who might be reading this, pinball machines were pretty much the Baby Boomers' version of video games. The biggest differences

are that you can't carry a pinball machine in your pocket like a phone, and shooting pinball actually hones your hand/eye coordination. Or at least that's what we tried to get our mothers to believe (but they usually didn't).

After what I just told you, it probably doesn't surprise you that I sometimes play a certain video game in which the hero fights his way through hordes of the undead to rescue his sister and daughter. In



**Figure 1.** The old prep was missing two holes required for the 45H, so the author used a BEST jig to drill them.



**Figure 2.** The author Sawzalled off the inside lever.



**Figure 3.** On the outside spring cage of a 45H, one of the studs is cut off, and the second one is partially cut.



**Figures 4 and 5.** The Schlage spindles were undamaged and fit neatly into the BEST levers.



games like this, there's always a "nightmare" level of play that is exceedingly difficult to complete. Kind of like what happens next.

## The Nightmare

For the last month, we've been working at some upscale assisted-living buildings in New England. We drive up, check into a hotel and work 10-hour days for a week. We're replacing mortise locks — ones that have a design flaw that has trapped people inside — with BEST 45H locks.

The old prep is missing two holes required for the 45H, so we use our BEST jigs (see *Figure 1*) to drill them. Other than that, it's a simple swap out. But doing this over and over again gets a little monotonous.

The other people I'm working with are very competent installers, but I'm the only locksmith. If one of them has an issue getting an old lock off a door, they usually ask me for help. I take care of the issue while they move on to the next door. We've got a lot of doors to do, so we have to keep moving.

We're also doing what I call "slash and burn." This means whatever we take off the doors is getting junked, so we don't need to be too fussy about issues such as stripped screws. We drill them out if we need to.

So my buddy Marty told me he's having a heck of a time with one lock on a door between the dining room and the kitchen area. He couldn't get the inside lever off, so he's dead in the water. I eyeballed the situation and found a Schlage mortise lock that's seen better days. It was a little odd because everything else we were removing was a different brand. There's a keypad on the dining side so the residents don't get into the kitchen area. Everywhere else in the building, where there's a keypad, there's a magnet.

The inside lever wouldn't come off, no matter what I tried, but I noticed the screws holding it and the spring cage were so loose that there was a sizable gap between it and the door. So I protected the door with painter's tape and proceeded to use my 12-volt Sawzall on the two studs that the screws thread into.

I removed the outside lever and unscrewed the cylinder, but when I pulled the chassis out, wires came out with it. This is where Nightmare Mode started, because I absolutely did *not* have a replacement Schlage electrified mortise lock. And I had just Sawzalled off the inside lever (*Figure 2*). I hadn't noticed that there wasn't a magnet.

We couldn't put in a non-electrified 45H and hand out keys because the door was in constant use, and everyone passing through the opening was in a rush. We had to fix the issue. I don't have a lot of pictures, but I can talk you through it.

*Figure 3* shows the outside spring cage of a 45H with one of the studs cut off and the second one partially cut. We did this so we could attach the cages to the door on both sides with short sheet metal screws. We found that the Schlage spindles (*Figures 4 and 5*) were undamaged and fit neatly into our BEST levers.

*Figures 6 and 7* show an old spring and how we used it to make sure the spindles seated in the lock. We wound



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### Vehicle Anti-theft System Acronyms

- P.A.T.S — Passive Anti-theft System, Ford Motors system theft deterrent transponder to immobilizer system, trademarked SecuriLock
- V.A.T.S.— Vehicle Anti-Theft System. GM's current system is referred to as Vehicle Theft Deterrent (VDT) also known as Passlock.
- C.A.S. — Car Access System. BMW theft deterrent system.
- S.K.I.M. — Smart Key Immobilizer Module. Chrysler/Dodge theft deterrent system

### Common Key/Immobilizer Programming Terms

- Read PIN/CS (All Keys Lost) — via a key programing tool, retrieve the code from the vehicle immobilizer or ECU and program the code to new blank transponder key (device).
- Key Read/Write — via a key programming tool, transducer information can be read from or written to key or device.



Figure 6



Figure 7

**Figures 6 and 7.** The team used the old springs to make sure the spindles seated in the lock.



**Figure 8.** The job is complete, minus the faceplate screws.

**“The other people I’m working with are very competent installers, but I’m the only locksmith.”**

up using two inside levers, which attach with set screws, to complete the job. We dimpled the spindles with a drill bit where the set screws contacted them so they would be less likely to slide off. *Figure 8* shows the completed job, minus the faceplate screws. Everything worked fine.

That was bad, but not quite as bad as the time I was holding a Herkulite door open and my partner decided to tap the corner with a punch. I never got an explanation as to why he did it, but I’ve never forgotten the *kaboom* of exploding glass as 300 pounds of it landed in a pile

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#### BMW

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- ADD KEY/ALL KEY LOST

#### VOLKSWAGEN/AUDI

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- ADD KEY/ALL KEY LOST VIA OBD FOR 2013 - 2020 MODELS GM
- READ IMMO PASSWORD, ADD KEY/ALL KEY LOST UP TO 2020

#### FORD

- ADD KEY/ALL KEY LOST (NO PIN NEEDED) UP TO 2020

#### MAZDA

- ADD KEY/ALL KEY LOST (NO PIN NEEDED) UP TO 2020 FCA
- READ IMMO PASSWORD, ADD KEY/ALL KEY LOST UP TO 2020

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ALSO SOLD SEPARATELY





**Figure 9.** This is what the author saw when he took off the outside plate on a bathroom door. He added the hole.



**Figure 10.** The installation crew lined up and drilled a hole through the blank plate and reused it.



**Figure 11.** The thumbturn spindle extended into the lock so far that it needed to be shortened so the emergency key would fit.



**Figure 12.** It's important to change out the strike plate when retrofitting and to op-check the installation before you walk away from it.



**Figure 13.** Sometimes the roll pin on the outside lever of a 45H lock is projecting out of its hole a bit.



**Figure 14.** The author is using an automatic center punch to seat the pin.

on the floor. *That* was a nightmare come true. At least it wasn't my fault.

The moral to this story is that mistakes or failures will happen no matter what you do, but look at this way: If you learn something valuable from the experience, you're better off because of it.

Teddy Roosevelt said, "In any moment of decision, the best thing you can do is the right thing, the next best thing is the

wrong thing and the worst thing you can do is nothing."

### Adaptations

We were only swapping out the common area, custodial and mechanical locks, which included the restrooms. *Figure 9* shows what we saw when we took off the outside plate on a bathroom door (we drilled the circled hole;

it wasn't there before). What was both odd and dangerous was that the plate we took off was blank, with no hole for an emergency key. We couldn't leave it that way, so we lined up and drilled a hole through the blank plate (*Figure 10*) and reused it.

Since the BEST thumbturns were smaller than the existing ones, we decided to reuse the old ones. We found that





Figure 15



Figure 16



Figure 17



Figure 18

**Figures 15-18.** These images show the sequence of assembling the parts when changing a cam on a BEST mortise cylinder.

the thumbturn spindle (*Figure 11*) extended into the lock so far that it blocked the use of the emergency key. We solved this by shortening the spindle  $\frac{1}{4}$ " with my cutoff tool.

*Figure 12* shows why it's important to change out the strike plate when retrofitting and to op-check the installation before you walk away from it. The strike on top is the old one. Note that the cutout is

much smaller than the new one. The new lock wouldn't latch into the old strike.

You may sometimes find the roll pin on the outside lever of a 45H lock is projecting out of its hole a bit, as in *Figure 13*. You need to tap it in so it won't bind when it's installed. In *Figure 14*, I'm using an automatic center punch to seat the pin. Usually two snaps with the punch will fix it.

If you've never changed a cam on a BEST mortise cylinder, *Figures 15-18* show the sequence of assembling the parts. The last picture is a little blurry, but it's at the point that the throw pins would be peeled over to complete the operation.

There are two quick ways to check your work before you cap a BEST core you've just combined. *Figure 19* shows the back





**Figure 19.** On the back of the core, the plug is turned, but the locking dog is in the locked position.



**Figure 20.** Tilt the core, and you'll notice that the pins in every chamber are the same height.



**Figure 21.** Combine the core as seen here, where both the plug and the dog are in the locked position.



**Figure 22.** When you tilt the core, all the pin stacks are the same height.





Figure 23



Figure 24

of the core with the plug turned, but the locking dog in the locked position. Tilt the core as in *Figure 20* and you'll notice that the pins in every chamber are the same height.

If you combine the core as in *Figure 21*, where both the plug *and* the dog are in the locked position. You'll see that all the pin stacks are the same height, but lower in the chamber (*Figure 22*).

*Figures 23-25* show how I modified my letter punch boxes for easier use. Once I added the angled piece of wood, it was much easier to see and use the punches. Notice that the business end of the punches face down, and I stamped the letters in the wood in front of each punch. Having the punch face-down relieves me of having to turn it before I use it. ☺



**Tony Wiersielis, CPL, CFDI,**

has more than 37 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 and serves as ALOA's Northeast Director. Reach him at [aew59@juno.com](mailto:aew59@juno.com).

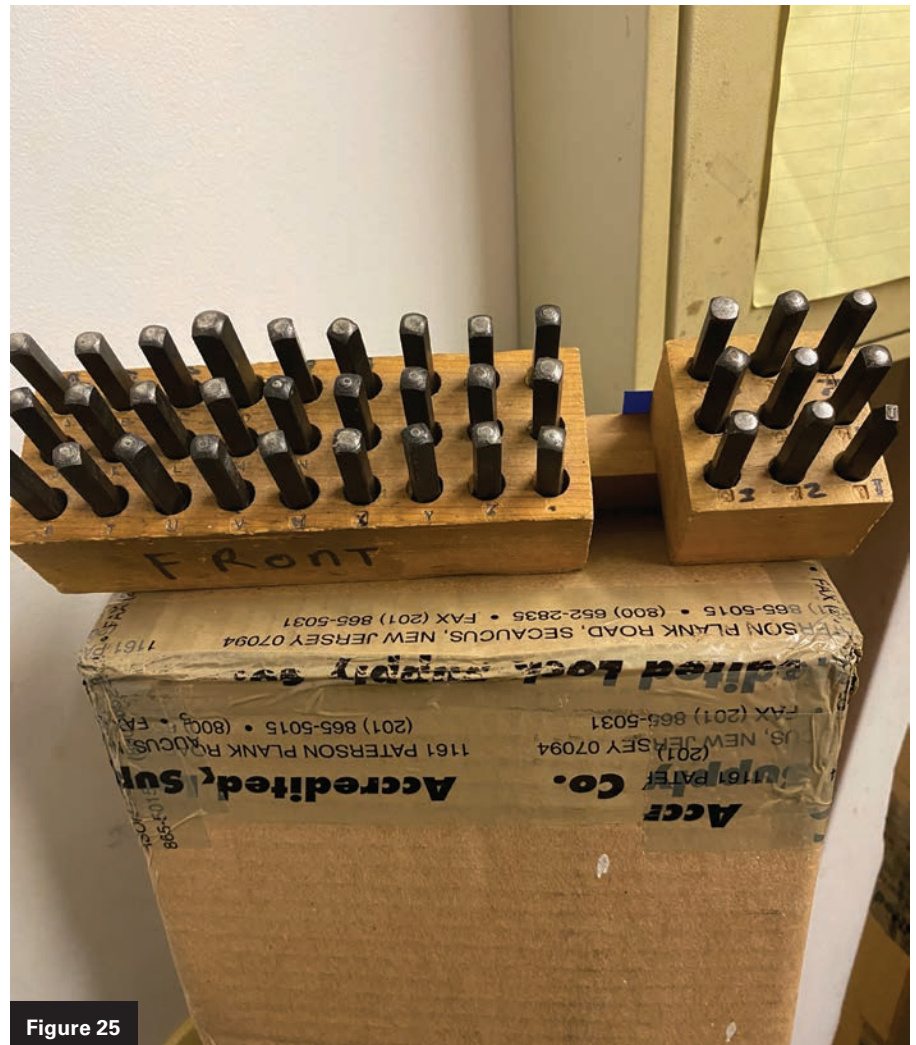


Figure 25

**Figures 23-25.** The author modified his letter punch boxes for easier use.



# Reports of Our Demise Have Been Greatly Exaggerated

By Jim Hancock, CML, CMST

**T**O PARAPHRASE MR. TWAIN (OR SAMUEL CLEMENS, IF YOU PREFER), “We ain’t dead yet.”

The pandemic undoubtedly has wreaked havoc on every aspect of daily life. Everything from going out with friends, visiting family and celebrating events to grocery shopping, doctor visits and simply going to work was, at best, disrupted and, in most cases, completely halted. While there was no plan in place to handle what the world was going through, human nature dictated that we adapt and get creative to have some semblance of normalcy — or what was called “the new normal.”

We learned to use and embrace technology such as Zoom to get together with family and friends, have game nights and see doctors virtually. We supported local businesses by using delivery services for groceries and meals from restaurants. And, more importantly, we found a way to continue conducting business.

While many developed a comfort level and proficiency working remotely and learning to continue to live while distancing and being cautious, others were not as fortunate: They lost jobs and had to close businesses. This especially affected those in the service industries that require face-to-face service, in-home visits and hands-on work that could not be performed via the web. Others were forced to liquidate assets to ensure their continued existence and give themselves a chance to thrive after the global emergency ended.

## Changes at ALOA

ALOA has faced changes during this time as well. Without the ability to host in-person training, we developed webinars that still met the needs of the membership and industry in teaching and enhancing skills. These webinars have ranged from short one-hour sessions to multi-week certification training. Testing has expanded to offer more of the PRP via the web. Thanks to the ACE Instructors — the best in the industry — there have been 12 new electives added to help fit many of the niche skills required in certain segments of the trade. These changes, while driven by the pandemic, will continue to

grow and enhance the ALOA experience for many years to come.

And, yes, ALOA did have to make some tough decisions during this time, but it was not done “to survive” so much as to try to remain fiscally responsible to the membership during these unique times. Contrary to some statements being made on social media outlets dedicated to locksmithing, ALOA is not on its last legs, dying or going away. We are alive and well, thank you very much. So, reports of our demise are greatly exaggerated... truth is, we ain’t dead yet — we’re not even on life support.

Thanks to the many manufacturer and vendor partners and members who care about their association and a board and staff who got ahead of the curve quickly. Because of them, ALOA is ready to have a great ALOA 2021 convention in Orlando in July and a full 2022 schedule of events. I hope you’ll be a part of them. ☺



**Jim Hancock, CML, CMST,** is ALOA’s education manager. You can reach him at [jim@aloea.org](mailto:jim@aloea.org) or (214) 819-9733.



# ALOA

ALOA Security Professionals Association, Inc.

# Membership Application

CANDIDATE PLEASE TYPE OR PRINT

Name: ☐ Mr. ☐ Mrs. ☐ Ms. First \_\_\_\_\_ Last \_\_\_\_\_ MI \_\_\_\_\_ Designation \_\_\_\_\_

Business Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_ Country \_\_\_\_\_

Work Phone \_\_\_\_\_ Home Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email Address \_\_\_\_\_ Website \_\_\_\_\_

Date of Birth (required) \_\_\_\_\_ Place of Birth \_\_\_\_\_ Social Security # (required) \_\_\_\_\_

US Citizen? ☐ Yes ☐ No If No, citizen of what country? \_\_\_\_\_

ALOA occasionally makes its members' addresses (excluding phone numbers and email addresses) available to vendors who provide products and services to the industry. If you prefer not to be included in these lists, please check here: ☐

## PROFESSIONAL INFORMATION

Please check the description that best describes you (check all that apply)

- |                                              |                                                |                                                           |
|----------------------------------------------|------------------------------------------------|-----------------------------------------------------------|
| <input type="checkbox"/> Locksmith Owner     | <input type="checkbox"/> Automotive            | <input type="checkbox"/> Employee Technician              |
| <input type="checkbox"/> Electronic Security | <input type="checkbox"/> Security Professional | <input type="checkbox"/> Mechanical Door Locks & Hardware |
| <input type="checkbox"/> Institutional       | <input type="checkbox"/> Safes                 | <input type="checkbox"/> Investigative                    |
| <input type="checkbox"/> Other _____         |                                                |                                                           |

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

Business License # \_\_\_\_\_ EIN # \_\_\_\_\_

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

Any other states you do business in and licenses held in those states \_\_\_\_\_

List all phone numbers used by your company/companies: \_\_\_\_\_

Number of Employees \_\_\_\_\_ ☐ Store Front Business ☐ Mobile Only

How did you learn locksmithing/access control? \_\_\_\_\_

How long have you worked in the locksmithing/security industry? \_\_\_\_\_

ALOA member Sponsor Name/Who introduced you to ALOA?

Sponsor Name (Required) \_\_\_\_\_ ALOA Number \_\_\_\_\_ Years known \_\_\_\_\_

Have you ever been a member of ALOA before? ☐ Yes ☐ No If Yes, when? \_\_\_\_\_ ID #, if known \_\_\_\_\_

Are you a member of any local locksmith association? ☐ Yes ☐ No If Yes, name of association: \_\_\_\_\_

Give the names and phone numbers of two industry-related references:

Name \_\_\_\_\_ Company \_\_\_\_\_ Phone Number \_\_\_\_\_

Name \_\_\_\_\_ Company \_\_\_\_\_ Phone Number \_\_\_\_\_

**IMPORTANT:** Have you ever been convicted of a felony? ☐ Yes ☐ No If yes, please give details on a separate sheet.

All convictions are reported to the Advisory Committee for review.

A routine background check is performed on all new applicants, unless you live in a State in which passing a background check is a part of the licensing requirements. Non-US citizen background checks are required. If you live in a country that does not allow third party background checks, you will be required to submit an authentic report upon request (no copies/duplicates allowed) before final membership approval can be granted. A copy of your business permit/license, license number, business card, company letterhead or suitable proof of employment in the locksmith/access control business must accompany application.



## TYPES OF MEMBERSHIP AND REQUIREMENTS

Check only one box from the categories listed below:

### Active Membership

Persons actively engaged in the locksmith/access control industry for a minimum of two years and have achieved one of ALOA's recognized program designations.

- |                                                |       |                                              |       |
|------------------------------------------------|-------|----------------------------------------------|-------|
| <input type="checkbox"/> US and US Territories | \$255 | <input type="checkbox"/> I elect to Go Green | \$230 |
| <input type="checkbox"/> International         | \$270 | <input type="checkbox"/> I elect to Go Green | \$200 |

### International Association of Investigative Locksmiths Membership

Must be an ALOA Member in order to join the IAIL.

- |                                                |      |
|------------------------------------------------|------|
| <input type="checkbox"/> US and US Territories | \$55 |
|------------------------------------------------|------|

### Probationary Membership

Persons undergoing training to qualify as an Active member, who have not received one of ALOA's recognized program designations. No person shall be a probationary member for more than three years.

- |                                                |       |                                              |       |
|------------------------------------------------|-------|----------------------------------------------|-------|
| <input type="checkbox"/> US and US Territories | \$255 | <input type="checkbox"/> I elect to Go Green | \$230 |
| <input type="checkbox"/> International         | \$270 | <input type="checkbox"/> I elect to Go Green | \$200 |

### Probationary Membership – No Sponsorship Required

Persons undergoing training that are new to the industry and do not know any Active member for sponsorship. Probationary period extended from 90 days to one (1) year. Probationary status lifted if sponsor acquired within year. Must obtain license if residing in State requiring licensure. A second background check will be performed by ALOA after 2 years of the 3 year maximum term. Any violation of ALOA Code of Ethics during probationary period will result in immediate termination of membership.

- |                                                |       |                                              |       |
|------------------------------------------------|-------|----------------------------------------------|-------|
| <input type="checkbox"/> US and US Territories | \$255 | <input type="checkbox"/> I elect to Go Green | \$230 |
| <input type="checkbox"/> International         | \$270 | <input type="checkbox"/> I elect to Go Green | \$200 |

### Allied Membership

Persons whose position in the locksmith/access control industry relates to locksmiths, and cannot qualify for any other class of membership.

- |                                                |       |                                              |       |
|------------------------------------------------|-------|----------------------------------------------|-------|
| <input type="checkbox"/> US and US Territories | \$255 | <input type="checkbox"/> I elect to Go Green | \$230 |
| <input type="checkbox"/> International         | \$270 | <input type="checkbox"/> I elect to Go Green | \$200 |

Note: Your application will be processed with a 90 day waiting period.

Any institutional locksmith not using his/her work address must submit a letter from employer stating that you are an institutional locksmith.

## DUES AND FEES

An application fee and the appropriate dues must accompany the application in order for processing to begin.

Application Fees Schedule:

US and US Territories .....	\$70
Canada, Denmark, Ecuador, New Zealand .....	\$160
Australia, Bahamas, Barbados, Belgium, Belize, Bermuda, China, France, Haiti, Philippines, UK .....	\$210
Israel, Korea, Papua New Guinea, Saudi Arabia, United Arab Emirates .....	\$360

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

## FINAL CHECKLIST

- |                                                                   |       |
|-------------------------------------------------------------------|-------|
| <input type="checkbox"/> Required Proof of Employment in Industry | _____ |
| <input type="checkbox"/> Annual Dues Amount                       | _____ |
| <input type="checkbox"/> Application Fee                          | _____ |
| Total Amount Due                                                  | _____ |

## METHOD OF PAYMENT

- ☐ Check   ☐ MasterCard   ☐ Visa   ☐ American Express   ☐ Discover

Card Number \_\_\_\_\_ Expiration Date \_\_\_\_\_ SEC \_\_\_\_\_

Print Name on Card \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

I understand and consent that in the course of reviewing this application ALOA may review publically available information for the purpose of verifying the information submitted and do a background check.

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

Signature \_\_\_\_\_ Date Signed \_\_\_\_\_

Dues, Contributions, Gifts are not deductible as charitable contributions for Federal income tax purposes. Dues payments are deductible as an ordinary and necessary business expense. However, donations made to the Legislative Action Network ARE NOT deductible as a charitable gift or business expense.

### Return to:

ALOA, 1408 N. Riverfront Blvd #303, Dallas, TX 75207  
Fax (469) 453-5241 • Email: [membership@aloea.org](mailto:membership@aloea.org)

## DISTRIBUTORS

### Access Hardware Supply

Phone: 800-348-2263  
Fax: 510-435-8233  
www.accesshardware.com

### Accredited Lock Supply Co.

Phone: 800-652-2835  
Fax: 201-865-2435  
www.acclock.com

### American Key Supply

Phone: 800-692-1898  
Fax: 650-351-5973  
www.americankeysupply.com

### Anixter

Phone: 859-425-3316  
www.anixter.com

### Banner Solutions

Phone: 888-362-0750  
www.bannersolutions.com

### Capitol Industries

Phone: 514-273-0451  
Fax: 514-273-2928  
www.capitolindustries.com

### Car And Truck Remotes.Com

Phone: 678-528-1700  
Fax: 844-457-8948  
www.carandtruckremotes.com

### Direct Security Supply, Inc.

Phone: 800-252-5757  
Fax: 800-452-8600  
www.directsecuritysupply.com

### Dugmore and Duncan, Inc.

Phone: 888-384-6673  
Fax: 888-329-3846  
www.dugmore.com

### Fried Brothers Inc.

Phone: 800-523-2924  
Fax: 215-627-2676  
www.fbisecurity.com

### Hans Johnsen Company

Phone: 214-879-1550  
Fax: 214-879-1520  
www.hjc.com

### H L Flake Co.

Phone: 800-231-4105  
Fax: 713-926-3399  
www.hlflake.com

### IDN Incorporated

Phone: 817-421-5470  
Fax: 817-421-5468  
www.idn-inc.com

### Intermountain Lock & Security Supply

Phone: 800-453-5386  
Fax: 801-485-7205  
www.implss.com

### Jovan Distributors Inc.

Phone: 416-288-6306  
Fax: 416-752-8371  
www.jovanlock.com

### Key4, Inc.

Phone: 213-788-5394  
Fax: 213-788-5444  
www.key4.com

### Keyless Entry Remote, Inc.

Phone: 402-671-5100  
Fax: 402-671-5100  
www.keylessentryremotefob.com

### Keyless Ride

Phone: 877-619-3136  
Fax: 409-216-5058  
www.keylessride.com

### Lockmasters, Inc.

Phone: 859-885-6041  
Fax: 859-885-1731  
www.lockmasters.com

### Locksmith Ledger International

Phone: 847-454-2700  
Fax: 847-454-2759  
www.locksmithledger.com

### Locksmith Resource

Phone: 312-789-5333  
Fax: 925-666-3671  
www.locksmithresource.com

### Midwest Keyless

Phone: 815-675-0404  
Fax: 815-675-6484  
www.midwestkeylessremote.com

### Security Lock Distributors

Phone: 800-847-5625  
Fax: 800-878-6400  
www.seclock.com

### Southern Lock and Supply Co.

Phone: 727-541-5536  
Fax: 727-544-8278  
www.southernlock.com

### Stone & Berg Wholesale

Phone: 800-225-7405  
Fax: 800-535-5625  
www.stoneandberg.com

### TimeMaster Inc.

Phone: 859-259-1878  
Fax: 859-255-0298  
www.time-master.com

### Transponder Island

Phone: 440-835-1411  
Fax: 216-252-5352  
www.transponderisland.com

### Turn 10 Wholesale

Phone: 800-848-9790  
Fax: 800-391-4553  
www.turnten.com

### UHS Hardware

Phone: 954-866-2300  
www.uhs-hardware.com

### U.S. Lock Corp.

Phone: 800-925-5000  
Fax: 800-338-5625  
www.uslock.com

## MANUFACTURERS

### ABUS KG

Phone: 492-335-634151  
Fax: 233-563-4130  
www.abus.com

### ABUS USA

Phone: 623-516-9933  
Fax: 623-516-9934  
www.abus.com

### ACS s.r.l.

Phone: 052-291-2013  
Fax: 052-291-2014  
www.acs.re.it

### Allegion

Phone: 317-810-3230  
Fax: 317-810-3989  
www.allegion.com

### Altronix

Phone: 718-567-8181  
Fax: 718-567-9056  
www.altronix.com

### American Security Products

Phone: 800-421-6142  
Fax: 909-685-9685  
www.amsecusa.com

### ASSA, Inc.

Phone: 800-235-7482  
www.assalock.com

### Autel US Inc.

Phone: 855-288-3587  
www.autel.com

### Blackhawk Products

Phone: 970-882-2522  
www.lockcodes.com

### Bulldog Fasteners LLC

Phone: 843-547-1065  
www.bulldog-fasteners.com

### Bullseye S.D. Locks LLC

Phone: 859-224-4898  
Fax: 859-224-1199  
www.bullseyesdlocks.com

### CompX Security Products

Phone: 864-297-6655  
Fax: 864-297-9987  
www.compX.com

### DETEX Corp

Phone: 800-729-3839  
Fax: 800-653-3839  
www.detex.com

### Digipas Technologies, Inc.

Phone: 949-558-0160  
Fax: 949-271-5701  
www.egeetouch.com

### Don-Jo Manufacturing, Inc.

Phone: 978-422-3377  
Fax: 978-422-3467  
www.don-jo.com

### Door Closer Service Co.

Phone: 301-277-5030  
Fax: 301-277-5080  
www.doorcloser.com

### Door Controls International

Phone: 800-742-3634  
Fax: 800-742-0410  
www.doorcontrols.com

### dormakaba Best

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www.dormakaba.com

### FireKing Security Group

Phone: 800-342-3033  
Fax: 708-371-3326  
www.fireking.com



### FJM Security Products

Phone: 800-654-1786  
Fax: 206-350-1186  
www.fjmsecurity.com

### Framon Manufacturing Company Inc.

Phone: 989-354-5623  
Fax: 989-354-4238  
www.framon.com

### Gardall Safe Corporation

Phone: 312-432-9115  
Fax: 315-434-94228  
www.gardall.com

### General Lock

Phone: 858-974-5220  
Fax: 858-974-5297  
www.generallock.com

### Global Tecspiro, Ltd.

Phone: 86 152 2033 2799  
www.gtl.tw

### Hollon Safe

Phone: 888-455-2337  
Fax: 866-408-7303  
www.hollonsafe.com

### HPC/Hudson Lock

Phone: 800-323-3295  
Fax: 978-562-9859  
www.hudsonlock.com

### IKEYLESS LLC.

Phone: 502-442-2380  
www.ikeyless.com

### International Key Supply

Phone: 631-433-3932  
internationalkeysupply.com

### Jet Hardware Mfg. Co.

Phone: 718-257-9600  
Fax: 718-257-0973  
www.jetkeys.com

### JMA USA

Phone: 817-385-0515  
Fax: 817-701-2365  
www.jmausa.com

### KABA ILCO Corp.

Phone: 252-446-3321  
Fax: 252-446-4702  
www.kaba-ilco.com

### KEY-BAK/West Coast Chain Mfg

Phone: 909-923-7800  
Fax: 909-923-0024  
www.keybak.com

### Keyincode, LLC

Phone: 978-207-0269  
https://keyincode.com

### Keyline USA

Phone: 800-891-2118  
Fax: 216-803-0202  
www.bianchi1770usa.com

### Klassy Keys

Phone: 888-844-5397  
Fax: 806-610-6670  
www.klassykeys.com

### KSP-Killeen Security Products

Phone: 800-577-5397  
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www.iccore.com

### Locinox USA

Phone: 877-562-4669  
www.locinoxusa.com

### Lock Labs, Inc.

Phone: 855-562-5522  
www.locklabs.com

### Lock Net LLC

Phone: 800-887-4307  
Fax: 877-887-4958  
www.locknet.com

### LockPicks.Com

Phone: 408-437-0505  
Fax: 408-516-0505  
www.lockpicks.com

### Locksmith Services s.r.o.

Phone: 420-604-226550  
www.locksmith.ca

### Lucky Line Products, Inc.

Phone: 858-549-6699  
Fax: 858-549-0949  
www.luckyline.com

### Master Lock Company LLC

Phone: 800-558-5528  
Fax: 414-444-0322  
www.masterlock.com

### Medeco Security Locks

Phone: 540-380-5000  
Fax: 540-380-1768  
www.medeco.com

### Mul-T-Lock USA

Phone: 800-562-3511  
www.mul-t-lockusa.com

### National Auto Lock Service Inc.

Phone: 650-875-0125  
Fax: 650-875-0123  
www.laserkey.com

### Olympus Lock Inc.

Phone: 206-362-3290  
Fax: 206-362-3569  
www.olympus-lock.com

### Pacific Lock Company

Phone: 888-562-5565  
Fax: 661-294-3097  
www.paclock.com

### PDQ Manufacturing

Phone: 717-656-5355  
Fax: 717-656-6892  
www.pdqlocks.com

### Philadelphia Hardware Group

Phone: 858-642-0450  
Fax: 858-642-0454  
philhardware.com

### Premier Lock

Phone: 908-964-3427  
Fax: 877-600-4747  
www.griptighttools.com

### RemoteLock Pro

Phone: 877-254-5625  
www.remotelockpro.com

### Sargent and Greenleaf, Inc.

Phone: 859-885-9411  
Fax: 859-885-3063  
www.sargentandgreenleaf.com

### SECO-LARM USA INC.

Phone: 949-261-2999  
Fax: 949-261-7326  
www.seco-larm.com

### SecuRam Systems, Inc.

Phone: 805-988-8088  
www.securamsys.com

### Secure- T- Agency (STA)

Phone: 514-963-3701  
Fax: 514-447-1024  
www.secure-t.ca

### Securitech Group Inc.

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

### Security Door Controls

Phone: 805-494-0622  
Fax: 866-611-4784  
www.sdcsecurity.com

### Select Hinges

Phone: 269-910-1988  
Fax: 269-323-3815  
www.selecthinges.com

### Stanley Security Solutions Inc.

Phone: 317-572-1934  
Fax: 317-578-4909  
www.stanleysecuritysolutions.com

### STRATTEC Security Corp.

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

### Tecnoinsurrezza

Phone: 859-480-9918  
www.usatecno.com

### TopDon USA, Inc.

Phone: 833-629-4832  
www.topdonusa.com

### TownSteel, Inc..

Phone: 626-965-8917  
www.townsteel.com

### Vanderbilt Industries

Phone: 973-316-3900  
Fax: 973-316-3999  
www.vanderbiltindustries.com

### Wilson Bohannon Company

Phone: 800-382-3639  
www.padlocks.com

## SERVICE ORGANIZATIONS

### ASSA Technical Services Inc.

Phone: 724-969-2595  
www.assatechnicalservicesinc.com

### Facilities IQ

Phone: 412-956-2900  
www.myfacilitiesiq.com

### Workiz Inc.

Phone: 855-790-7363  
www.workiz.com

## HELP WANTED

**Employer:** North Carolina State University  
**Working Title:** Locksmith II  
**Anticipated Hiring Range:** \$40,000 - \$42,000  
**Work Schedule:** M-F, 7:00 a.m. – 3:30 p.m.  
**Job Location:** Raleigh, NC  
**Department:** Grounds & Building Services  
**Link to job posting:** <https://jobs.ncsu.edu/postings/137577>

**Primary job responsibilities for the Locksmith II position include, but are not limited to:**

- Servicing, repairing and installing all door hardware, including fire rated exit devices, closers, mortise, and cylindrical locking hardware;
- Understanding and knowledge of hardware manufacturer installation specifications and guidelines
- Understanding of NFPA 101 and NFPA 80 life safety and fire codes, and the ability to locate and research needed materials associated with job from vendor source.
- Monitoring and tracking all orders for timely completion.
- Handling project management tasks, and having a working knowledge of processes and time lines.
- Providing cost estimates and proposals.
- Working knowledge in key bittings array for small format master keying, pinning of cores, ability to research and collect information pertaining to customer needs.
- Communicating with customer scope of work needed
- This position has been designated as mandatory personnel for the University and may be required to report to work during adverse weather conditions even though the University may be operating on an alternate schedule. This position may assist with snow and ice removal under the direction of a supervisor.

**Other job responsibilities include, but are not limited to:**

- Assisting other trades as required.
- Checking and re-checking work of others considering accuracy with respect to standards and code compliance.
- Maintaining on-call status; Mandatory on-call service rotation will be to provide after-hours emergency service when paged.
- Responsible for continuing education and license renewal requirements.

**Minimum Experience/Education:**

- High school diploma or equivalency; or demonstrated possession of the competencies necessary to perform the work.

*Optional Guidelines: Experience in the Trade(s) areas related to the area of assignment may be substituted on a year-for-year basis.*

- Must be able to communicate effectively verbally with supervisors and the general public and understand verbal and written instructions and other communications regarding work assignments and other matters.
- Knowledge and skills necessary that relates to keying a building, paperwork and documentation associated with rekeys and the ability to coordinate key meetings, pinning cores, cutting keys, and installation of hardware.
- Must be able to lift up to 30 pounds frequently, with or without reasonable accommodations.

**Preferred Qualifications:**

- 3+ years locksmith experience
- Proficient in Microsoft Office products, i.e., Word, Excel.
- Experience in AiM work order system is preferable, but not contingent for position.
- Institutional Locksmith Association and/or Associated
- Institutional locksmith Association membership.
- Certified Journey Level certification and/or Fire Door Inspector certification, but not contingent for position.

**Required Licensing and Certifications:**

- Valid Driver's license required. Must be able to obtain a valid NC driver's license within 60 days of hire and it must be maintained.
- Current locksmith license required. <06/21>

## HELP WANTED

**Hiring**

Needed an experienced locksmith in the Palm Springs, California area. Must have experience in all areas of locksmithing, auto not necessary. Medical insurance, 401K, 2 weeks vacation, and pay based on experience. Please send resume to: Sandilee107@aol.com or call 760-346-5214. <06/21>

**Job Opening in Independence, MO**

Independence, MO, openings for an outside service tech and inside shop tech.

Our company services all fields in the industry. Inside shop tech would require some automotive knowledge.

Must be willing to work some weekends and/or nights.

Send resume to gregslock@yahoo.com. <05/21>

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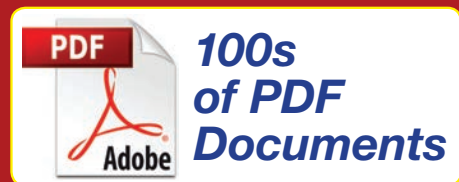


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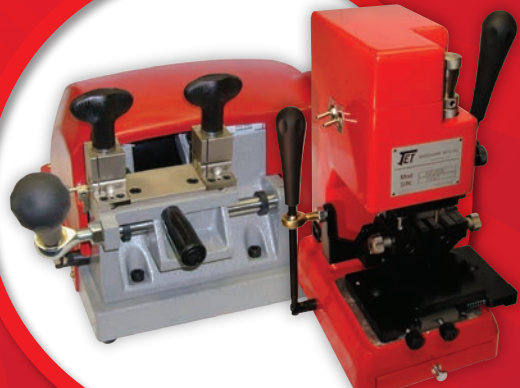
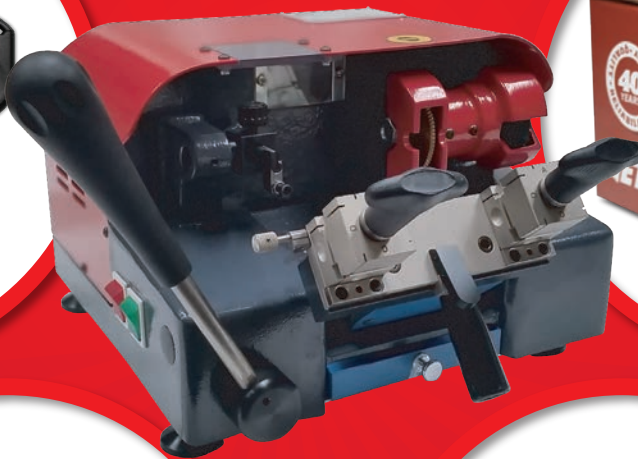
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