The National Locksmith

The National Locksmith®

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January 1995
Volume 66, No. 1

INSIDE THIS ISSUE

Your Vote Counts!
TOP 100
Ballot Enclosed

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COMMENTARY

Have a computer? Talk to The National Locksmith Online!

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It's time for you to cast your ballot for the locksmith industry's TOP 100 products! In this issue you will find a Top 100 ballot ready for your votes. See the inserted ballot, fill it out and send in your votes today. Here's your chance to choose the best products made for the locksmith!

Marc Goldberg
Editor/Publisher

Right now, today, with a computer and a modem, you can contact *The National Locksmith* online! We have taken an account with America Online (AOL). So now you can send us electronic mail from the comfort of your own computer, using a local access number near you. In fact, even if you have a different service such as Compuserve or Prodigy, you can still send us E-mail through the Internet.

First let me tell you what we will NOT be doing on AOL. We will not be putting the magazine's contents in the system. That's to keep the public from reading the magazine. So for security reasons, you won't be able to read *The National Locksmith* on your computer. Also, we will not be offering a great deal of technical assistance on the system, again for security reasons.

However, there are many interesting things we can do together with your computer and your modem. First, is electronic mail. When you type a note and send it through E-mail, it will instantly zap into my computer's mailbox here at National.

What might you want to use this feature for? You can send letters to the editor, instantly and almost for free using E-mail. You can give us feedback on any article or my Commentary. You can send Technitips by E-mail. You can request further information about an advertisement by E-mail. You could even order a book or product from us this way, giving us your credit card number.

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Although you and I can E-mail each other quickly and cheaply no matter which online service you use, there are some advantages to you if you use AOL as your online service. Soon, we will publish information in the magazine on how you can join with our staff and writers in live online forums, at least once a month. That means each of us can be sitting at our own computers using a local number near our own location. But we can all be talking about locksmithing in the privacy of a password protected room. In next month's Commentary, I'll give you more information on that. Imagine sitting in your office and chatting live with Dave Mc Omie and Dale Libby about safe opening.

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Marc Goldberg

LETTERS

Comments, Suggestions and Criticisms

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and length. Please address your comments, praise, or criticism to Editor, *The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107*. All letters to the editor must be signed.

Making It Right

Dear Marc:

The article about the Corbin Russwin CK4400 Series published in November *(The National Locksmith, page 18*) contains an erroneous statement with regard to Corbin Russwin's relationship with Yale. In the article it was stated Corbin Russwin was purchased by Yale. This is incorrect. To clarify, Corbin Russwin was purchased by Williams Holdings in January 1994 and is operated as an independent wholly owned subsidiary.

Paul Dauphin
Marketing Manager
Corbin Russwin

Reader Miffed By Legislation

Dear Marc:

Over the past few months I have noticed that *The National Locksmith* has turned pro-legislation, as in the '94 November issue under Viewpoint. I'm concerned with such comments that could be interpreted as those that oppose legislation have something to hide. Maybe it should be asked what is in it for the ones who want legislation? Could it be that someone may get a big shot title like Locksmith Director and control the destiny of locksmiths across the U.S.A.? Or, just maybe it's a way to get rid of the little guy so the big ones can control the market. It sounds like greed and jealousy to me! Oh, you took offense to that? Well, so did we.

I wonder where the news crews got the ideas for their sting operations. This could be great to boost the legislation issue, don't you think? If I've heard it one time I've heard it a thousand times, we need legislation to protect the public. Believe me, that's why we already have judges and courts!

And here's the best one of all: Now we must have legislation to protect us from other trades that have passed legislation to restrict us from performing our services.

This mess of legislation is being forced down our throats by our so called fellow locksmiths. If you really want to see how they stand, then let's all boycott the nation for one week or longer and refuse to do any lock work at all!

This would be a great way to see who is friend and who is foe! It is also a great deterrent for those law makers to be a little more careful and respectful when passing laws that encroach on our livelihoods! How long do you think a nationwide strike would last before the public and government would come crying to us for help?

As a member of *The National Locksmith Magazine* and as an educator in locksmithing, I'm very concerned with why it is that the locksmithing schools across this country have not been better informed on how legislation, if passed, will affect our students? I have looked at several other sources for information on legislation, outside the people who drafted it. And it seems that schools are not being informed of legislation, nor are they being prepared for meeting any governmental demand for changes. Is this an oversight or is this intentional?

Just think a minute how many of your subscribers and other locksmith organization members are referred to you from the locksmithing schools across the U.S.A.! Believe me when I tell you, I take offense to such comments so loosely used that would suggest, in the Viewpoint commentary, as educators we are not inspiring or encouraging students with the legal or moral values of locksmithing. Over the years thousands of locksmiths got their beginning through our doors first and have served our country well. Never the less it seems some locksmiths seem to forget how they got started in locksmithing!

Never would I believe that *The National Locksmith* would side with such a dead head issue that has torn other organizations apart. So good luck on your new quest of fame and glory! I hope it's not the end of the finest trade journal ever written. In the past I always looked forward to reading the magazine and sharing it with the students and encouraged the students to become members.

But if this is the new direction of *The National Locksmith* I want no part of it!

Steven Glass
Tennessee

The November 1994 issue of The National Locksmith *included Viewpoint, a reader opinion column. Viewpoint, which is to run on a regular basis, is a forum for our readers' to express themselves and is not necessarily the opinion(s) of* The National Locksmith. *Following are responses to that month's column.*

Reader Questions Viewpoint

Dear Marc:

Art Shoob's editorial in your November issue, concerning locksmith legislation, inspires several comments. Art is right - we do need some sort of legislation to protect us from restrictive regulations such as Dade County's requiring a mechanic's license to work on auto locks.

Unfortunately, "Big Dawgs," like Art, also see legislation as a means to protect themselves from people in a "...Volkswagen going from car dealer to car dealer...."

Although I actually drive a Plymouth Voyager, Art's talking about me.

It's time for a reality check, "Big Dawgs." There's nothing wrong with starting small and working hard to build a business. There's nothing wrong with going out to look for work on days when the phone doesn't ring. And it's just smart to use an affordable van to avoid killer debt.

I offer my customers excellent work at an excellent price. I suspect that's how the Big Dawgs got big.

Art's attitude toward small independent locksmiths makes me want to think long and hard about inviting government into the running of my business.

Don Mohan
New York

Networking The Answer

Dear Marc:

I take exception to a recent editorial (Viewpoint, *The National Locksmith*, November 1994) that blamed older locksmiths for holding back what they taught employees because they feared being shown up or felt they were educating their own competition.

To quote the article:

"After all, look at the one's out there who call themselves locksmiths. We taught circumstance, it is our responsibility to correct this. And it can only be done through legislation."

First of all, we did not teach them. They could not, did not, or would not learn. Their first blessing was for someone to hire them and give them exposure to the industry. What they were given while they were being paid was icing.

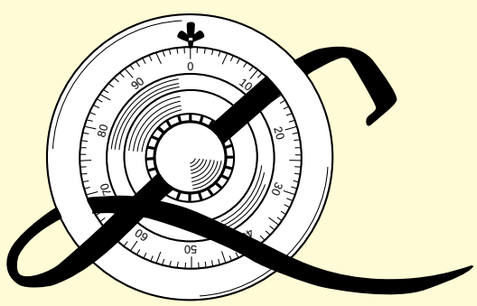
There were probably books, catalogs and technical bulletins at their disposal. People who learn do it on their own. They don't have it done for them. They jump at every opportunity within their grasp. Every locksmith association I know, emphasizes education, pushes education, and presents educational opportunity. Distributors and associations alike offer low-cost seminars on a regular basis. Trade shows abound. I, personally, have never attended an association meeting where I did not learn something. I have never taken or re-taken a class where I did not learn something new.

We need legislation all right, but the legislation should be in the form of requiring membership in a recognized association, plus legislation empowering associations. Associations know what should be required of locksmiths and are much more capable of regulation than are politicians.

In a recent comment, about locksmiths in Dade County Florida having to be licensed as auto mechanics you said: "I personally have never heard of a dumber law in my life."

This is the kind of legislation politicians write, and it puts the locksmith industry on notice that a little networking should take place if we are all going to dodge the "legislative bullet."

The profession of locksmithing is becoming more and more technical,



which means that fewer and fewer individuals will measure up to keeping abreast of the industry. Something has to be done to prevent them from lowering the standard of the industry.

There are over one-hundred locksmith associations in the U.S., which means that every locksmith would have reasonable access to more than one. This could act as a deterrent to harassment.

I whole-heartedly believe some kind of regulation is in order, but I sure would like to see it come in the form of self-regulation first.

R.W. Staples, CML
Washington

Legislation, Like It Or Not

Dear Marc:

Here's a few observations I've made that may interest you.

1. Regarding T.V. news "Sting" operations on unsuspecting locksmiths, I can't defend the locksmith for not being responsible enough to check identification but, isn't the news station guilty of conspiracy to commit a fraud? Or after the car/house that they allegedly own is open and coerced the locksmith to open, are they not an accessory to the crime? Maybe even more guilty as they "masterminded" the attempted theft.

2. I talked to Illinois State Representative Cal Skinner, Jr. and asked him why he voted against the Illinois locksmith licensing act. His major reason for changing from a yes vote to a no was that a convicted felon could hold a valid license, i.e. rapist, child molester, embezzler or even someone found guilty of a violent crime. I see his point. Would you want John Gacy to knock on your door to change your locks?

3. I heard from a reliable source that the Illinois Burglar and Fire Alarm Association is trying to have anti-pilferage devices (Detex, Alarm Lock, etc.) placed under the alarm licensing act, making it illegal for locksmiths to install or service these devices without holding an alarm license. Their claim is that it is an electrical device that sounds an alarm when activated and therefore falls under the alarm licensing act.

Without the licensing of locksmiths, there is no definition of our scope of work, and it could soon be unlawful for us to service those devices. Whether the I.B.F.A.A. is actively pursuing this or not is not the issue, if they did we could be "locked out" of this part of our business. Chalk up one more reason for licensing.

Michael Philpot
Illinois

Editor's Note:

Michael, Thank you for your comment. These same observations have been and are being made by locksmiths from around the country. Because legislation in Illinois is close to a reality, I'll let Kathy Zaniolo, President of the Greater Chicago Locksmith Association, respond. While her response is focused on the events in Illinois, the issues are common to all locksmiths in states facing legislation.

Dear Marc:

Since I've been at the front of the legislative battle currently being waged in Illinois, I would like to thank Mr. Philpot for being interested enough to contact his representative. We want all Illinois locksmiths to contact their representatives on our pending licensing bill.

The T.V. Stings, we have been told are not illegal because the media has the permission of the owner. So, no crime is being committed. Fortunately, however, the last Sting may have actually helped our cause because they went after the Governor, asking why he had not supported our bill.

Unfortunately, Mr. Philpot is apparently not familiar with our bill, or he could have informed his representative that any crime that could directly relate to locksmith service would be grounds to refuse a license by the Dept. of Rules and Regulations. It will be up to the Department to determine if a crime would be related. I feel sure that rape, child molesting, etc. would fall into that category when they consider the locksmith is given access to homes as the normal course of his/her business.

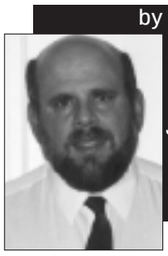
Finally, the Alarm Law is written in such a way as to eliminate the locksmith from touching any device that emits a sound that requires a response. A year ago our association led a campaign to have the wording changed. We lost also. The alarm industry refused to consider an exemption for locksmiths because anyone can be a locksmith.

I am very glad Mr. Philpot agrees we need licensing. The associations in Illinois realized this and banded together to form The Allied Locksmiths for Illinois. The purpose of this association is for the express purpose of handling the legislative needs of Illinois locksmiths as the majority of the locksmiths have determined them to be.

I would like to urge Mr. Philpot and any other concerned locksmith in Illinois to get involved, stay current, get informed, and join a local association or the Allied Locksmiths for Illinois. Your associations are working hard for all locksmiths. Why not join in and lend them your support?

Kathy Zaniolo, CPL
President,
Greater Chicago Locksmiths Assn.

THE LAGARD CABLE CHANNEL



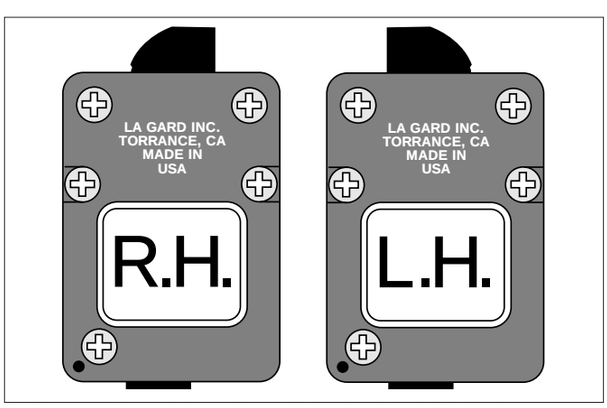
by Dale Libby

The secrets of the LaGard Digital Swingbolt lock are exposed. Drill hole placement is now a snap.

I would occasionally get calls to work on the LaGard digital lock about once a month. Last week I had six calls in five days. It was time for a reality check as well as time to form a new concept for working on these locks. *(See photograph 1.)*

First, I was concerned with how to determine the handing of these keypad activated locks. After determining the handing, I wanted to know the position of the bolt, how it swung, and the correct drill point and measurements to use. By the second lock, I had found an indicator that makes working on these locks very easy.

1. LaGard keypad mounted to safe door with 12 button keypad.



2. Conventional handing of the LaGard Digital Swingbolt lock.

Illustration two shows the classic LaGard theory of lock handing. I do not get it. I think that the handing diagrams should be labeled:

1. Right Hand, Left Swing
2. Right Hand, Right Swing
3. Left Hand, Left Swing
4. Left Hand, Right Swing
5. Vertical Up, Left Swing
6. Vertical Up, Right Swing
7. Vertical Down, Left Swing
8. Vertical Down, Right Swing

Pretty silly, isn't it? Actually, by using my system, you do not have to know anything about the handing of the lock before you work on the safe. The safe lock reveals the handing and the drill point. The secret, soon to be revealed, is the title of this article - "The Cable Channel." *(See photograph 3.)*

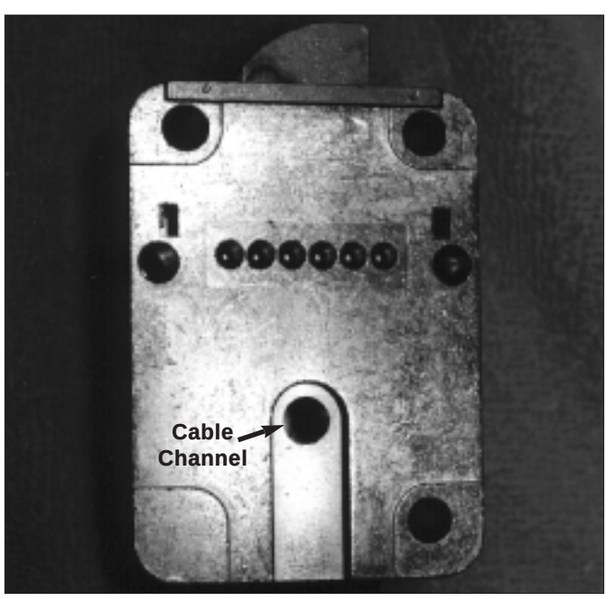
Before disclosing the neat trick, let us go through a hypothetical opening sequence, actually a compilation of several locked safe door services condensed into one representational opening.

There are three general reasons for a lockout; The keypad is broken or missing (including dead batteries), the customer has tried to change the combination himself without understanding how to do it correctly, or some of the lock IC chips are defective or fried.

If the keypad is not working, change the batteries. Wait five minutes and try again. If this does not work, the safe will have to be drilled.

When the keypad is missing or physically broken, it is possible with a few tools and an extra keypad to input the combination to the existing lock. The tools that you will need are:

1. The LaGard crimping tool (Black Dot Die) *(See photograph 4.)*
2. An 8-pin connector
3. A crossover 8-pin connector coupler
4. A working LaGard Key Pad



3. The cable channel on the bottom of the lock. Notice the dimples, the attack points for drilling.

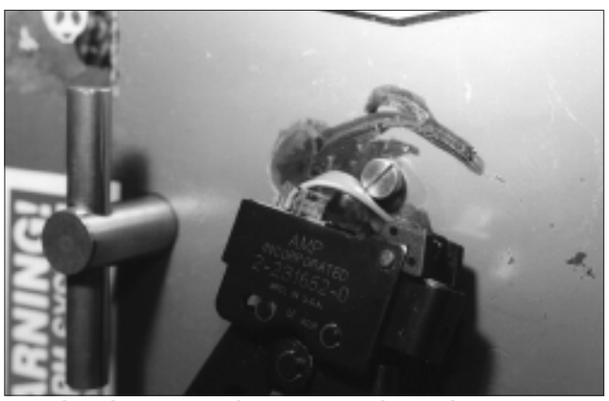
All these tools and connectors can be purchased through Lockmasters. Here is a brief description of how it is done. First, cut off and strip the wire hanging from the safe and install an 8-pin male connector. *(See photograph 5 and 6.)* Plug this into the crossover connector and plug the end of the working keypad into the other side of the connector. Install your bunny batteries and wait for five minutes. Then input the supposed combination. If the combination has not been changed, the safe lock will open. The keypad signifies this by chirping three times. *(See photograph 7.)*

4. Amp crimping tool, crossover 8-pin connector with keypad wire.

It is important to insert the wires correctly into the connector. I use the Orange wire as an indicator because it is easy to see. With the connector up, I put the Orange wire to the right side of the plug before crimping. The total color coding can be seen in illustration eight. If, after trying this the lock does not open, it is again time to drill.

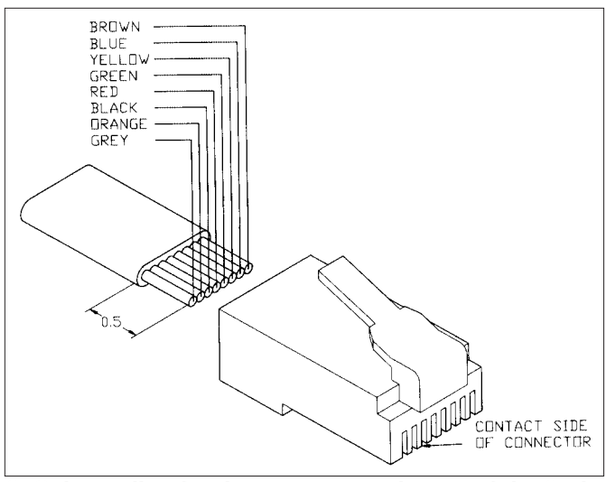
If, the keypad has a LCD readout and/or a delay, or the pad will not take

5. The cable has been cut before attaching male 8-pin connector.



6. Using the AMP tool to connect the 8-pin connector to digital lock.

7. Setup for opening safe, keypad attached to double female connector which is now attached to the safe wire.



8. Color coding for the correct attachment of the 8-pin connector before crimping in the AMP tool.

numbers, it is again, time to drill. There is no magic way to fix any parts of this lock. I explain this fact to the customer, that if the lock or keypad fails all attempts to open with the above maneuvers, it is time to drill, and that means a totally new lock and keypad. Nothing can be repaired, nothing can be saved. (You might have some use for extra parts, but the customer will not!)

Just an added note. If the lock can be opened without drilling it is possible to reprogram the LaGard lock without knowing the existing combination. There is an override code on a tag on the back of the lock. If you can see this, then you can reset the combination to 5-5-5-5-5-5. If you can get the safe open without drilling, and the slip of paper with the number is missing, there is a technique published in the NSO's National Safeman newsletter that lets you reset the combination by shorting two terminals on the combination lock printed circuit board IC Chip.

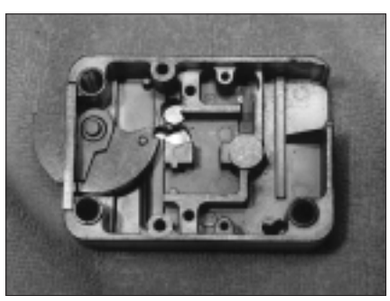
Here is the way I determine the handing of the lock. Remove the dial by either pushing up or by removing the battery compartment plates to uncover two screws that hold the larger Delay keypad to the safe. After removing the keypad, just look down the hole. You will see the cable channel and the direction the cable is going, the locking bolt is opposite of the direction of the cable.

For example, if the cable goes to the right, the lock is a right handed lock with the bolt to the left of the cable hole. If the cable goes up, the lock is handed vertical down. If the lock had not been retrofit, it is harder to see the actual cable channel, but by removing the cable flush and using an otoscope, the correct handing can easily be determined.

The next step is more radical. Even if we now know the hand of the lock, we do not necessarily know the swing, and thus, not the exact placement of the opening hole and the exact placement of the solenoid. Again, a flash of insight about determining this made me laugh with delight at the simpleness of this heretofore complicated and often wrongly determined task.

If we are going to drill this lock, we are going to DRILL this lock. After determining the hand of the lock (RH, LH, VU, or VD), pull out the remaining cable from the spindle or wire hole (Yes, we are assuming the lock is not remotely mounted but under the keypad), and drill into the lock case with the largest drill that will fit the spindle hole.

Once we penetrate the lock case, we can see a cavity towards the lock bolt. There is an upper and lower hole we can look through with an otoscope or RA Borescope. What we are looking for are traces of two small wires that go to the solenoid that actually keeps the lock swing bolt locked.



9. Inside of drilled swingbolt lock before I discovered the correct measurement of 1-1/4" toward bolt and 1/4" toward the solenoid.

For example, we have determined by using the cable or channel that the lock is right handed (bolt to the left) as we look at it from the outside of the safe. We then drill a 5/16" hole (or whatever) down the spindle hole into the bottom of the lock and slightly into the case. We look into our hole and see a wire (or wires) on the bottom of the hole. This means that the solenoid is located on the bottom of the lock. We have our drill point.

The correct measurement to drill it 1-1/4" toward the bolt, and 1/4" down. If the wires were on the top of the lock as seen through the spindle hole, we would drill, again, 1-1/4" to the left of dial hole center and 1/4" up. This position puts us at the tip of the solenoid. Once we drill through the lockcase (at one of the included dimples on the underside of the lock) we will see the end of the solenoid. *(See photograph 9.)*

We now have two choices. Pry it back and turn the opening handle, or more simply just continue drilling until the solenoid is fragments. The safe can now be opened by turning the handle forcing the swingbolt to the open position.

This opening works well on safes without glass plates. If a glass plate is present, then side drilling is indicated. Open LaGard Swingbolt Lock and Really Prosper!

NEWSMAKERS

New Products and Industry News

New DoorKing Receiver/Transmitters

DoorKing has added the Model 1514B programmable receiver to its popular line of wireless high security access control products. In addition, the company now manufactures their own line of hand held high security transmitters.

The 1514B receiver is designed for outdoor applications and can be used as a stand alone device, or programmed to output in Wiegand format. The receiver will store up to 16,000 unique transmitter codes, and up to 10 facility codes. When used with multi-button transmitters, the 1514B can be programmed to recognize a particular transmitter button

allowing two or three receivers to be placed side by side without the fear of "phantom" receiver operation. The 1514B also features a block coding program, which allows easy programming of all transmitters in a single short programming sequence. This eliminates the need to physically activate each transmitter so that the receiver can "learn" its code, a procedure that is common in other systems of this type.

For *FREE* Information
Circle 224 on Rapid Reply

National Safe & Lock Expands Product Range

Following a lengthy market survey of the industry, National Safe & Lock Company is expanding its home and office safe line to include a full range of gun and wall safes. It is also adding new locking devices to its laminated padlock line.

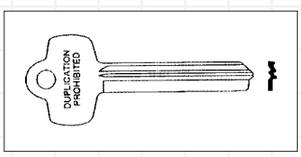
Gun safes are available in three different sizes including 4-gun, 8-gun and 18-gun. The safes reflect the same superior finish as the "Hos" range and have spatter paint finish, sea gray color, fascia plate and combination lock. The wall safes are available in two different sizes, each with a tilted flange for easy mounting and/or installation.

Added to the padlock line are single and double locking brass and laminated padlocks, combination and digital padlocks, heavy duty brass padlocks, discus padlocks, cam locks with tubular or regular keys, drawer locks with round or rectangle plate, glass showcase sliding door locks and key tags. Additional products will join the line later. All products are blister carded and are competitively priced. Color brochures are available to enhance marketing produ cts.

For *FREE* Information
Circle 227 on Rapid Reply

Best Keys From Jet

The "TE" (1A1TE1) keyway has just been added to Jet's "SILVER LINE." Several months ago, the "TD" (1A1TD1) was released and are currently available from their distributors. The addition of the "TD" and "TE" keyways brings to the Locksmith, over thirty five variations of most all the key blanks for Best locks. Included in those variations are the extra long (5/16") blanks required for a number of special Best locks and padlocks. Keyways available are, A through R, TB, TD and TE.



All blanks come incised, "DUPLICATION PROHIBITED," exactly the same as the original manufacturer's standard. In addition, under JET'S Personaline program, they offer at no die charge, several standard incisings such as "U.S. GOVERNMENT DO NOT DUPLICATE." They also incise either a Locksmiths shop name or an end users such as Universities, Hospitals, etc. names, logos, etc., at a slight additional cost.

For *FREE* Information
Circle 225 on Rapid Reply

Master Lock Adds Entrance Handles/Leversets

Four new handlesets - the Kent, Monticello, Old Colony and St. George, and two new leversets - the Stratus™ and Paris™ - have been added to the Master Lock line of high security door hardware.

The Kent uses a sleek, streamlined design that complements contemporary-style homes. The Monticello has a classical and elegant flare, while the Old Colony features a traditional design. The St. George is a more striking handleset that rests on a rectangular base. For superior resistance to tarnishing, flaking and pitting, all Master Lock Handlesets come with the Durashine™ finish at no extra cost, and a full 10-year finish warranty.

The elegant Paris lever sweeps delicately into a graceful curve and the Stratus lever features and "L-shaped" design. Both levers meet the accessibility requirements of the Americans with Disabilities Act, while the Stratus also meets certain fire codes.

For *FREE* Information
Circle 226 on Rapid Reply

Addalock Padlock Protector

Padlocks are no longer a security device. Criminals and thieves have known for years how easy it is to break an ordinary padlock. Addalock

Continued on page 14

Continued from page 12

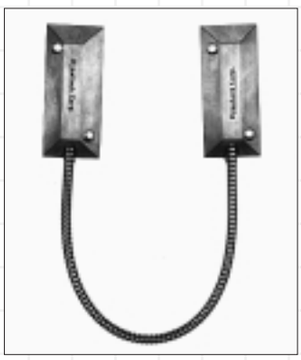
padlock protector shields your padlock from destruction. Your padlock cannot be cut, hacksawed or hammered. Addalock works in conjunction with all locks, padlocks or latches. It improves your security by more than 10 times while still allowing the key holder easy access.

For *FREE* Information
Circle 228 on Rapid Reply

DynaLock #9300 Door Cord

DynaLock Corp. introduces the #9300 Series Door Cord.

The compact, low profile #9300 Door Cord provides



an economical means to transfer power from the door to the door frame.

The 16" long armored cable affords excellent tamper protection for internal wires and may be ordered to match popular architectural finishes.

For *FREE* Information
Circle 229 on Rapid Reply

Infogard S10 By Infographic Systems

Infographic Systems has introduced the Infogard S10 small access control system for use with Magnetic Stripe, Wiegand, or Proximity cards or with keypad only.

The new low cost system is based on a standalone Master Card Reader with keypad and LCD display, to which seven slave readers and two printers can be connected by a single multi-drop cable. All the readers are programmed from the Master reader offering facilities normally found only in PC-based systems. The system can handle up to 1,000 users, and store up to 2,400 transactions, and can be connected to any of the Infographics larger system products.

For *FREE* Information
Circle 230 on Rapid Reply

Securitron Updates Key Switch Family

Securitron announces a line of key switches with broad applications to the security industry.

The MK series allows field introduction of any US made 1-1/8" or 1-1/4" mortise cylinder (regardless of cam). The key switch can therefore be integrated into the facility keying system currently in use. Switch output is 5 Amps SPDT (DPDT optional); spring loaded momentary or alternate action. A bi-color 12/24 VDC LED is included and the unit if furnished on a stainless steel single gang or narrow stile key plate. Optionally, a second switch

can be added so that separate switches are activated depending on the direction of the key turn.

The KP1 includes an integrated tubular cylinder/key switch with 3 Amp SPDT contacts. The cylinder is field re-keyable and is available in spring loaded momentary or alternate versions. The unit is furnished on a stainless steel single gang or narrow stile key plate and includes a backbox and bi-color LED.

Applications include electric lock control, bypassing or activating alarm points, controlling CCTV recorders, etc. Securitron also offers a matching miniature timer to yield timed signals from the key switches.

For *FREE* Information
Circle 232 on Rapid Reply

Von Duprin Introduces Keypad Trim

Von Duprin, Inc., has introduced a new outside trim with a built-in keypad for single-door applications. The new unit is easy to install, program and operate.

It is designed for use with several Von Duprin electrified exit devices. Its circuit board installs easily in the exit device case. Trim options include active or rigid operation, with or without key cylinder, for maximum application flexibility.

The weather-resistant keypad offers 100 user codes, with one million code combinations, variable in length from two to six digits. Red, green and yellow LED indicators show locked, unlocked and programming acknowledgment respectively. The units are programmable for either maintained or momentary operation, and multiple false code entries will cause the keypad to switch to an inoperative status until reset.

For *FREE* Information
Circle 237 on Rapid Reply

Jado's Patina Collection

Just one of the newest products in the very successful topline series. This unique and ever changing finish begins its worn and exclusive look with your very first touch.

Progressively its beauty becomes even more stylish with each human touch. Like no other finish, it ages gracefully and becomes a warm and elegant addition to any decor.

Patina hardware is now available in knob and lever sets with rosettes or escutcheons, cabinet knobs and cabinet pulls.

The patina collection is available now through design showrooms and authorized Jado dealers. As with all of Jado products, it carries a lifetime mechanical warranty.

For *FREE* Information
Circle 233 on Rapid Reply

Kano Laboratories' Penetrating Lubricant With Graphite

Kano Laboratories, Inc., offers Penephite, a combination lubricant containing oils, solvents, and micron-sized graphite in colloidal suspension.

Penephite takes graphite into inaccessible small spaces where it adheres to metal and provides long-lasting lubrication. Even in hot or cold, wet or dry conditions, Penephite is ideal for loosening and supplying long-lasting dry lubrication to leaf springs, slides, locks and hinges. Penephite also protects against rust.

Penephite handles the most challenging jobs— it even reduces engine wear during auto break-ins. Sold with a money-back guarantee, Penephite is available in bulk and aerosol packaging.

For *FREE* Information
Circle 234 on Rapid Reply

NT Monarch's Double Egress Vertical Rod Exit Devices

NT Monarch Hardware, a Newman Tonks company, has developed a double egress vertical rod exit and panic device that complements the aesthetics of 10' high doors. The device allows architects to maintain 10' doorways throughout a structure, including double egress doors as required on large capacity rooms such as theaters, atriums and conference centers.

The vertical rod device is available with NT Monarch's 17, 18, XX and CV exit devices. It is UL listed for 3 hour A label doors, 4'-0" x 10'-0" single and pairs.

For *FREE* Information
Circle 235 on Rapid Reply

Seco-Larm's SLI-259

Seco-Larm's newest microwave sensor, the SLI-259, features separate interior and exterior zone adjustments, with programmable exterior zone protection and autodiagnostics.

Most microwave sensors monitor only one zone. The SLI-259, on the other hand, monitors two zones—one exterior, the other, interior. When combined with an alarm system with pre-intrusion detection, such as the Seco-Larm Enforcer 1000A or 2000A, the alarm's siren will "chirp" to warn off potential intruders that penetrate the exterior zone, the alarm will be triggered.

Additional pre-intrusion capabilities are built into the SLI-259 from SECO-LARM. This new sensor features zones that can be adjusted independently of each other using dual controls for better zone separation. In addition, the exterior zone may be programmed to customize the alarm system's response so that recurring intrusions will cause the alarm to sound.

For *FREE* Information
Circle 236 on Rapid Reply

GENERAL SECURITY

HIGH SECURITY LOCKS: MEDECO

Test Article #73

by Giles Kalvelage

High security locks - an upgrade from standard security locks - really requires a definition.

Aside from requirements set by standards institutions like Underwriter Laboratories, defining "high security" may seem a bit ambiguous. Associated Locksmiths of America (ALOA) defines a high security cylinder as "... a cylinder which offers a greater degree of resistance to any or all of the following: picking, impressioning, key duplication, drilling or other forms of forcible entry." ALOA defines a high security key as "...a key for a high security cylinder."

Tim Layton, President of Medeco, states that "high security" is dependent on the application, but should prevent a person who is reasonably skilled at the art of locksmithing from compromising the lock in a reasonable amount of time.

According to Layton, there are two perspectives or definitions an end user will use for high security: One, it is the absolute best lock for thwarting an attempted compromise; and, two, it is a form of key control where attempts at compromise demand physical damage to the lock.

The second of these two perspectives Layton calls the "security seal" concept. This carries the idea that the lock and its keys are used to control access by the lock serving in a seal capacity – in order to bypass or compromise the system, the lock must be physically (and visibly) altered or damaged.

As such, high security is dependent on application. High security to a military installation is different from high security for a manufacturer's tool crib, or a company's supply room.

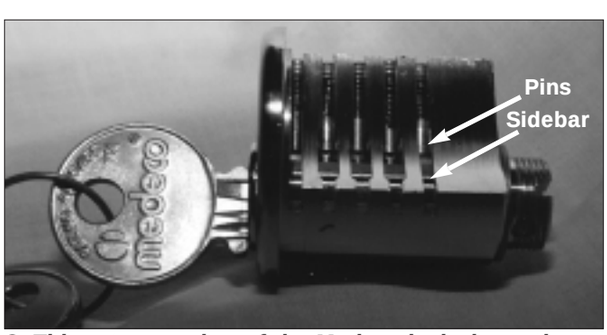
Medeco locks conform to the above definitions as well as those established by standards institutes. Without trying to sound like an advertisement for Medeco, they have been leaders in high security cylinders since the 1960's.

While Medeco is known for retrofit upgrading of security for most major brands of commercial locksets, Medeco also produces its own line of locksets and leversets, deadbolts, vertical drop bolts, and padlocks. Medeco also produces a line of switch and cam locks, though high security, are operationally different from the architectural hardware cylinders. *(See photograph 1.)*

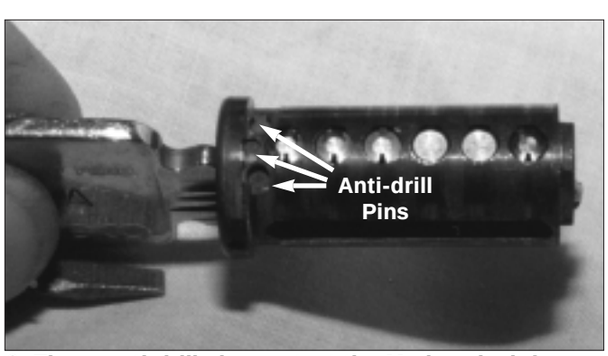
What makes Medeco locks high security? In a nutshell, the addition of a sidebar locking mechanism within the cylinder, and the mechanical means of its operation combined with modified pin tumblers, increase the security of the cylinder to resist picking, impressioning, and unauthorized key duplication. *(See photograph 2.)*

There are two means for preventing a key from turning the plug in the Medeco lock. The use of a shearline, typical of most pin tumbler locks, and a sidebar that must properly mate with slots in rotating bottom pins. These two factors work

1. The Medeco mortise and key-in-knob cylinder.



2. This cut away view of the Medeco lock shows the top and bottom pins as well as the sidebar that make this lock pick and impressioning resistant.



3. These anti-drill pins protect the Medeco lock from being easily drilled.

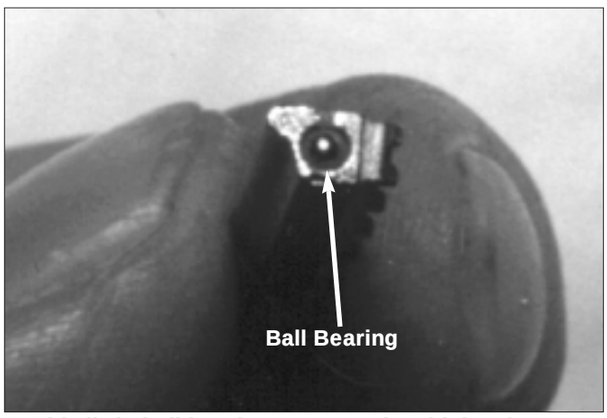
corporately to prevent incorrect keys from turning.

The corporate shearline/sidebar function is attained through the use of bottom pins that have angled or chiseled tips and a sidebar slot milled into their side. A key with angled cuts across the top of the blade of the key is used to align the pins at the shearline and sidebar drop in point. These angled cuts must correspond to the angle of the bottom pin's chisel for proper pin alignment. When all of the tumblers are properly aligned, the bottom pins line up at the shear line as in a standard lock cylinder, plus, the sidebar slots now face and align with the sidebar fingers, allowing the sidebar to enter the plug when the key is turned.

Unlike the sidebar mechanism on the familiar General Motors sidebar wafer lock, where the sidebar has continuous spring tension pushing the sidebar into the plug, the Medeco sidebar has springs that push the sidebar away from the plug and out against the shell. The shear force of the plug when it is being turned pushes the sidebar back into the plug. If an incorrect key is used, the sidebar slots of the tumblers do not rotate to the proper position and the sidebar cannot be pushed back into the plug, preventing the plug from turning.

Likewise, when a key is cut using incorrect depths, the pin tumblers do not allow the plug to turn because the pin tumblers do not line up at the shearline. A key cut with the correct depths but wrong sidebar angles may allow the tumblers to align at the shearline, but the sidebar cannot enter the plug and prevents it from turning. This dual locking mechanism is what thwarts picking and impressioning attempts.

Remember, to effectively pick a standard pin tumbler lock, turning pressure must first be applied to the plug in order to find the inherent tolerances between each pin chamber for a successful manipulation. In the case of a Medeco lock, the sidebar resists effective turning. The same is true for impressioning attempts. The sidebar resists good marks on the keyblank because it does not allow sufficient turning pressure of the plug to bind the pins against the shear line to leave impressions. Even if marks were readable, finding an ample source of uncut keyblanks is difficult,



4. This little ball bearing protects the sidebar from drilling.

5. The steel inserts on this mortise cylinder also prevent easy drilling.

as most keyways are restricted to some degree.

To increase the drill resistance of the cylinder, Medeco inserted steel security pins into the cylinder plug to protect the shear line and the sidebar. *(See photograph 3.)* The side bar also has a security ball to increase drill resistance. *(See photograph 4.)* Finally, on mortise, rim and deadbolt cylinders, anti drill steel inserts help protect the shear line and sidebar. (*See photograph 5.)*

In the 1960's, Medeco's architectural hardware sidebar locks used five or six pin chambers. The bottom pins contained an 85 degree chisel point which tapered to the center of the bottom of the pin. The pin was designed so that the tip of the pin did not reach the flat of the key. Instead, the chisel point rode on the slope of the key. The pins themselves were .135" in diameter.

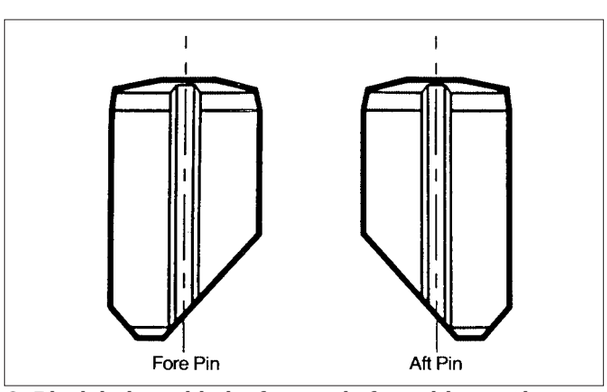
The sidebar mill on the side of the pin required either a center, left or right rotation of the pin. The left and right rotation was 20 degrees from center. The pins were appropriately designated "C" for center, "L" for left, and "R" for right. Spring pressure pushing from the top of the chamber forces the chisel point down against the angle cut on the key, rotating it into position. If the angled cuts on the key matched the sidebar slots of the tumbler, the sidebar could enter the plug and. Providing the proper pin depths are also realized, the plug would turn.

The left and right bottom pins were also milled with a "false" sidebar slot to resist picking. Should the proper depths be realized by picking, the sidebar finger could be trapped in a false sidebar slot. When this happens, the pin cannot be rotated. Once turning pressure is removed from the plug, the sidebar can reset itself and return to the normal rest position.

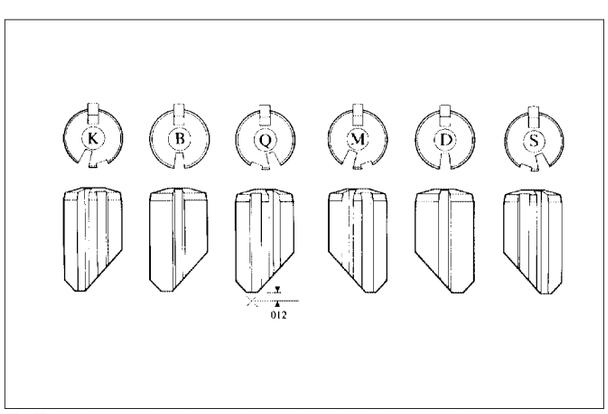
Standard architectural hardware locks usually used a standard full step .030" increment and depths 1 through 6. Noting that each depth has a center, right, and left rotation, 18 bottom pins were available. A MACS value of four is recommended by Medeco. (Some special keying used half step increments of .015". However, the denotations for half step increments were 0 through 9.)

In the mid 1980's, patent protection was due to expire on the standard Medeco patents. To be granted new patents, a significant new design change relating to the product operation was developed, and the Medeco Biaxial was introduced. While plugs and shells required modest changes to accommodate newly designed bottom pin, it was the bottom pins that received the most change.

While six depths remained, the chisel point was offset at .031" from center. Chisel points in front of center are known as "fore" pins, chisel points behind center are known as "aft" pins. Each fore and aft positions have a center, left and right rotation. This yields a total of 36 different bottom pin configurations. The pin diameter is remained at .135" and the chisel point is still at a 85 degree angle. Pin rotation is still 0 degrees center, and 20 degrees offset left or



6. Biaxial pins added a fore and aft position to the bottom tumbler configuration.



7. The letter designations for the fore and aft pins.

Continued on page 20

Continued from page 18

right. Pin increments changed to .025" for Biaxial. The locator tab has also been relocated to the opposite side of the tumbler from the sidebar slot. *(See illustration 6.)*

Designation for pins are "K" for left fore, "B" for center fore, "Q" for right for, "M" for left aft, "D" for center aft, and "S" for right aft. Notice that the "K", "B", and "Q" is one alphabet letter before "L", "C", and "R", while "M", "D", and "S" is one alphabet letter after "L", "C", and "R". That is an easy way to remember the left, center and right letter designation of the bottom pin designations. *(See illustration 7.)*

Turning to the master wafers and top pins, Biaxial master wafers are available in steps one through five, starting at .025" through .125" in .025" increments. Although the pin stack is not constant with Biaxial cylinders, the stack should be between .499" and .524" to provide adequate pressure for bottom pin rotation.

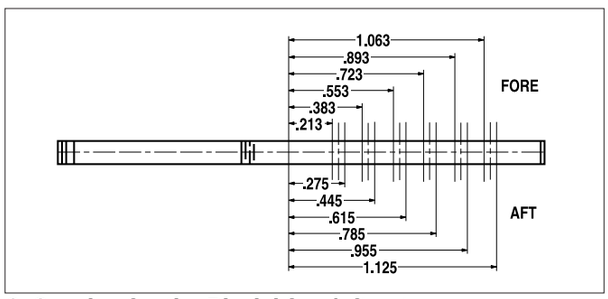
The driver pins are stepped at .030" increments - with a noteworthy exception. Mushroom driver pins are available in the #3 and #5 lengths. A #3 length is .210", while a #5 length is .150". Some pin kits list a #4 driver, which is not a mushroom driver pin. Its length is .210", the same length as a #3 mushroom pin. If for some strange reason a combination does not contain either a #3 or #5 depth, but it does contain a #4 depth, use a #3 mushroom driver pin in that chamber.

Key Specifications

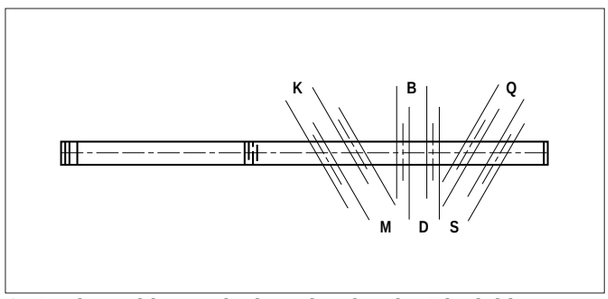
For the original architectural hardware keys Medeco defines 4 dimensional specifications for cutting Medeco keys. These specifications include the keyway, or key profile, the depth of the cut, the angle of the cut and the spacing.

Medeco keys come in a variety of keyways. The keyway is determined by the key restriction requirements of the end user and the locksmith. Although the original Medeco patents have expired, and aftermarket keyblank manufacturers are supplying some of the more commonly used keyways on an unrestricted basis, the intent of Medeco for the original Medeco and Medeco Biaxial systems are to provide several categories or levels of key control.

An unrestricted keyway is available for those whose primary concern for



8. Spacing for the Biaxial fore/aft cuts.



9. Angle and letter designation for the Biaxial key.

choosing Medeco is the pick, impression, and drill resistance offered by the high security cylinders. Keyblanks are readily available to anyone wishing to purchase them.

Card restricted Keys can be purchased through any participating locksmith. Keyblanks may be available on the locksmith's premises, as with the PATRIOT system, or factory cut keys provided to the locksmith distributor, through the Gold Card system.

With Patriot, a participating locksmith may provide immediate key service upon presentation of a card, but the locksmith must commit to an annual sales commitment. With the Gold Card system, the locksmith is not required to an annual sales commitment, but all keys must be ordered through a distributor, which adds time for shipping.

Signature restricted keys offer immediate access to keys service through a particular locksmith or agent.The locksmith agent is responsible for verifying a signature card. Several other factory and locksmith based key control programs are available from Medeco depending on the need of the locksmith or end user.

Contract restricted keyblanks, usually seen in larger facilities with on staff locksmiths, may get their own geographically designated keyway.

Original Standard Medeco architectural hardware keys were cut with either five or six cuts, starting cut at .244", and a cut to cut specification of .170". Spacing is critical as the pins rest against the key's cut slope, not its flat. When using the HPC 1200 type key machine, use HPC Code Card C36 or equivalent; Cutter CW-1012, and Jaw C. Framon users use Cutter CC-001

Medeco Root Depth Dimensions For Original Architectural Keys

1	.258"
2	.228"
3	.198"

Continued on page 116

AUTOMOTIVE SECURITY

THE 1995 NISSAN MAXIMA

Test Article #74

by Michael Hyde

1. The 1995 Nissan Maxima

The 1995 Nissan Maxima is the latest redesigned version of this model. *(See photograph 1.)* There are some important changes for the locksmith. The first is the way the car is unlocked with car opening tools, the easier removal of the trunk lock and the complex door lock removal.

Nissan has done away with the push-button keyless entry system, maybe because most Maxima owners never had the factory preset-code changed, thus having a lot of keyless break-ins by using the common entry code of '5523'.

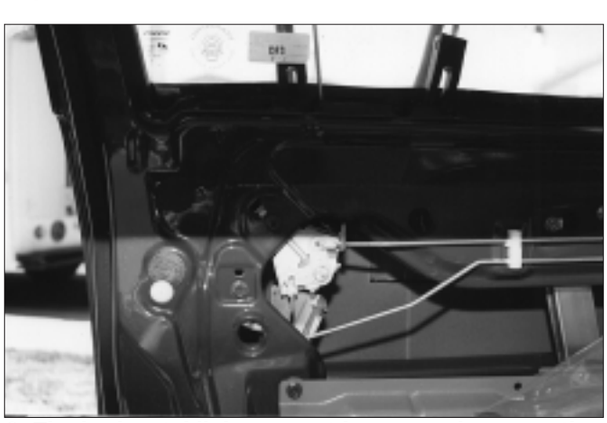
This vehicle uses an airbag supplemental restraint system.

Opening Techniques

Photograph two shows the driver's door panel removed to show how an inverted horizontal slide linkage tool is positioned to unlock the car. Slide the linkage forward to unlock while maintaining a light to medium upward pull on the tool to keep a good grip on the linkage as you move it forward. When you insert the tool into the car with the help of a light you will be able to see only part of the bell crank assembly.

Ignition Lock

Photograph three is a view of the



2. The horizontal linkage must be grasped up near the bell crank and moved forward.

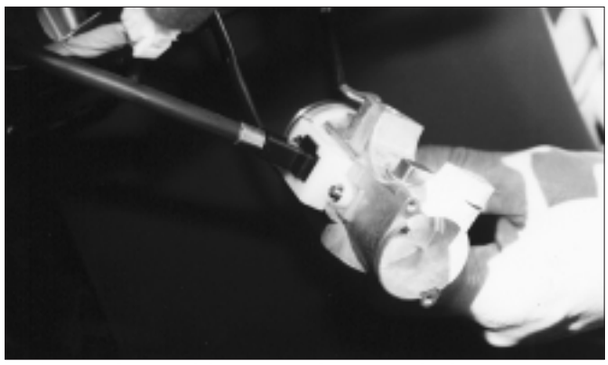
3. A view of the ignition and the two piece clam shell column shroud.

4. The ignition lock with shroud removed.

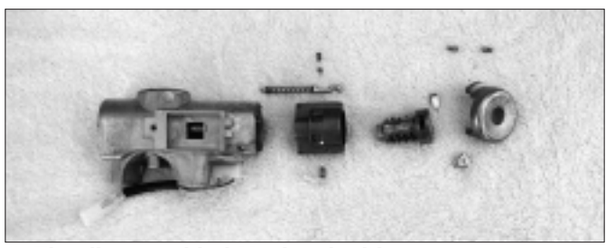
ignition cylinder assembly in the car. There is a large gray plastic slide-on cover that sits over the face of the ignition. The column shroud is a two piece clam shell held together by six screws. Remove the six screws to remove the shroud and disconnect the battery.

Photograph four is a view of the ignition assembly with the plastic removed. It is not necessary to remove the airbag to service the ignition. Disconnect the wiring from the ignition and then remove the shear-head bolts. For models with an automatic transmission, lower the assembly and remove the Phillips head screw that is holding the automatic transmission inter-lock in place, and then remove. *(See photograph 5.)*

Photograph six is a view of the ignition assembly completely disassembled. The cylinder is secured in place by two solid roll-pins that can be easily removed by drilling a 7/64" hole directly next to each pin and using that hole to pry up the pin.



5. On Maximas with automatic transmission, disconnect the inter-lock cable from the ignition.



6. The disassembled Maxima ignition.

Door Lock

Photograph seven is a view of the door lock cylinder as it sits in the handle assembly. Photograph eight is the driver's door panel. To remove the

7. The teardrop shaped Maxima door handle and lock.

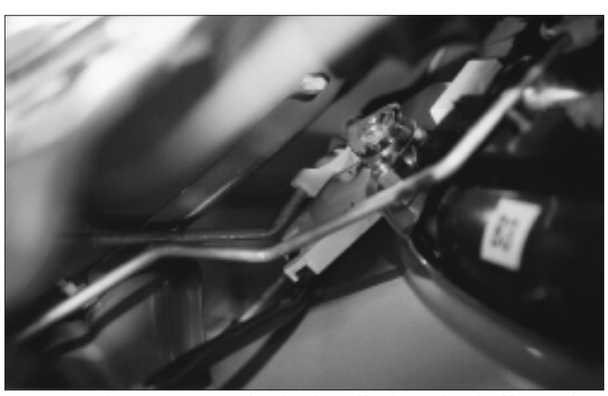
8. Driver's door and inside door panel.

panel, you will need to remove the two screws on the bottom of the panel and the one screw located in the door pull cavity. Next, remove the trim cover that sits on the inside release lever assembly, it simply pops off. The panel can now be pulled outward as it uses standard push-in plastic clips.

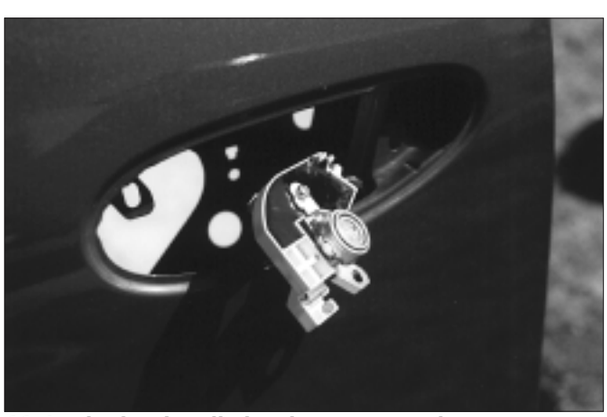
Photograph nine is a view of the door panel removed. To remove the door lock cylinder, you must first remove the linkage bell crank, linkage shield, gray steel door support and left side window track. It sounds difficult but it really isn't. To remove the left side window track you must remove the one 10mm screw that holds it in place. The screw is located on the lower portion of the door edge at the point where it curves around. After you remove the screw the track just slides out.

Photograph ten shows you the view of the door lock/handle assembly after the linkage bell crank, linkage shield, gray steel door support and left side window track have been removed. Now there is a lot more room to work in and you can now gain access to all the handle screws. Remove the handle and disconnect the electronics from the door cylinder by removing the one Phillips-head screw that attaches it. *(See photograph 11.)* The door cylinder can now be removed from the car for disassembly. *(See photograph 12.)*

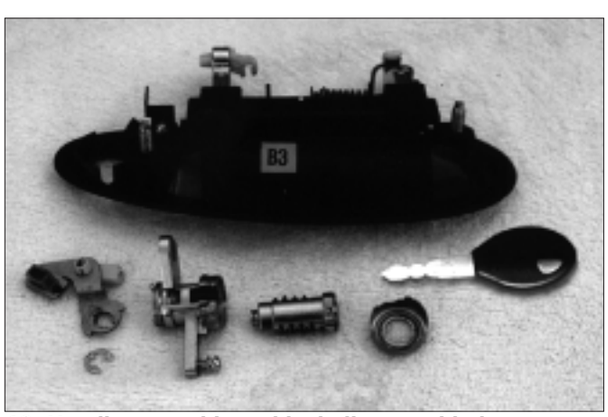
9. With the door panel removed the lock and lock linkage can be seen.



10. In order to get to the lock cylinder, the bell crank, linkage shield, door support and window track must be removed or loosened.

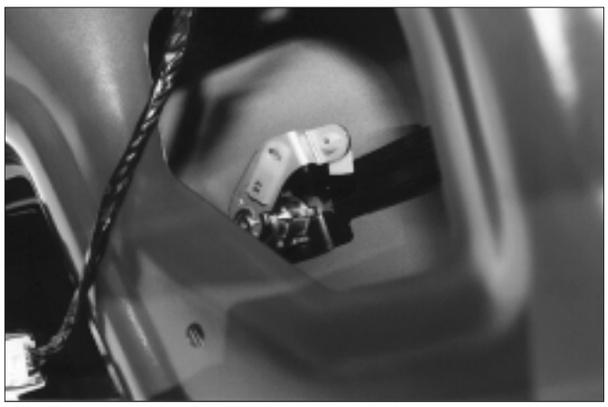


11. Lock after handle has been removed.



12. Handle assembly and lock disassembled.

13. This liner must be removed to get to the trunk lock.



14. The trunk lock is easily removed.

Trunk Lock

The redesign of the rear section of the Maxima makes it a lot easier to remove the trunk lock cylinder. The trunk lock cylinder is located on the right side of the deck lid near the tail light. Inside, the trunk lid liner must be removed to gain access to the lock cylinder. *(See photograph 13.)* The liner uses push-in clips that can be easily removed and reused. After you have removed the liner you will be able to see the trunk lock cylinder. The cylinder has an electronics unit that snaps on to the lock body. Remove the electronics unit by unsnapping it and then remove the linkage rod and standard horse-shoe clip that holds the lock in place. *(See photograph 14.)*

Photograph 15 is a view of the electronics unit and trunk cylinder disassembled.

Glove Box Lock

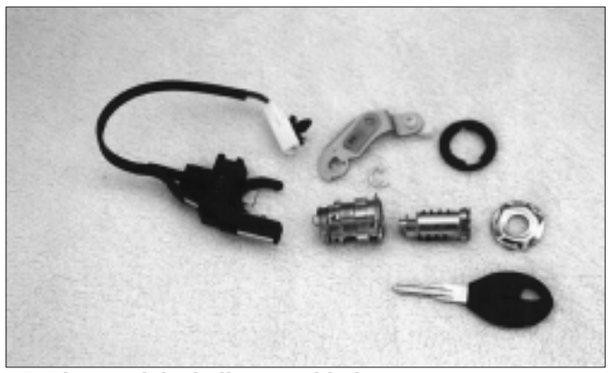
To remove the plug from the glove box lock you must have the plug in the locked position and then depress the copper colored retainer. *(See photograph 16.)* The plug contains only four out of the eight tumblers. *(See photograph 17.)*

Making First Key

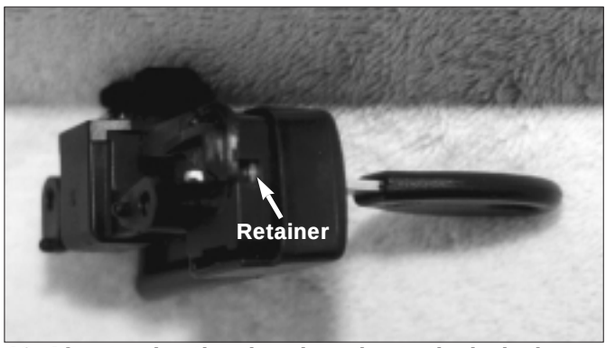
There are no codes located on any locks on this car. The only place the code is located is on a metal tag supplied with the factory keys. To make a first key to the car, other methods include:

Method #1

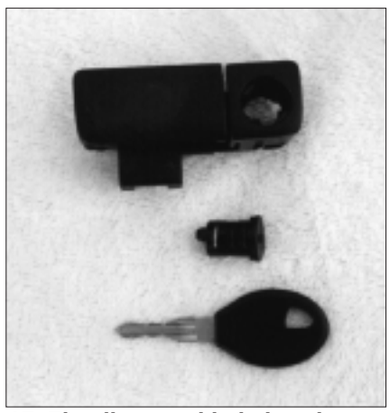
Remove and disassemble the trunk cylinder to get all eight cuts to make a master key. The electric trunk release switch is located on the driver's door



15. The trunk lock disassembled.



16. After turning the glove box plug to the locked position, depress the retaining wafer for removal.



17. The disassembled glove box lock.

panel and is always active. The trunk lock uses the standard Nissan face cap, ASP Part # P-16-205. (Time 15 to 20 Minutes.)

Method #2

Impression the door or trunk cylinder to make a master key.

Code Series: Y & X 1-8000
Key Blank:
Ilco X123/DA25, X124/DA28, X197/DA30, X210/DA31
Silca DAT13, DAT14, DAT15, NSN11
HPC Card: CF67
MACS: 2
Shoulder To Center Of First Cut: .115"
Cut to Cut: .085"
Depths:1=.280", 2=.260", 3=.240", 4=.220"

Michael Hyde is the author of the new Autosmart, published by the National Locksmith.

Tumbler Locations

1	2	3	4	5	6	7	8	
x	x	x	x	x	x	x	x	Ignition, Doors, Trunk
x	x	x	x					Glove Box

ELECTRONIC SECURITY

WIRE FASTENERS AND HANGERS

Test Article #75

by Tom Seroogy

Once wire or cable has been run, it's necessary to fasten it or tie it down to prevent damage. Even though such conditions as drop ceilings make it convenient to let wiring lie-as-is once it has been run, installers and technicians from other equipment companies (i.e. telephone, lighting, HVAC, etc.) may need access to the areas your wiring has been left. If not secured, incidental damage can unnecessarily occur. The best policy in any case is to fasten it!

How your wire is going to be fastened is going to depend on the type of run, the type of wire, and environmental conditions.

Special cases, for example, require special types of fasteners, hangers or raceways. Running wire through volatile areas such as granaries or petroleum product factories require special wiring and special raceways to prevent explosion.

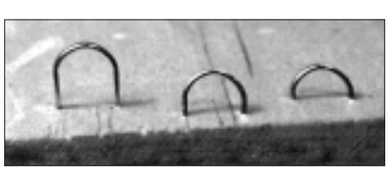
Long runs of heavy wire in an outside environment demand the correct number of the correct type of hangers at correct intervals along the length of the wire. If not, wind, rain, and icing can bring the wire down or cause enough chaffing to wear through the wire's insulation.

Running wire beneath ground often demands not only a special type of wire, but also a correct raceway buried at correct specifications for specific conditions and environment.

As covered in previous articles, the best way to know and understand these requirements and conditions is to take courses on the National Electrical Codes (NEC) and to obtain the NEC manual. A copy of the NEC manual covers most all the conditions an electrical installer will run into and can be found in the local library or can be obtained from the National Fire Protection Association (NFPA) at 800-344-3555. The price at the time of this article is $74.50 plus a $4.15 handling charge.

1. Stapling is one of the most common wire fastening methods used by the electronic locksmith.

For most electronic locksmiths, however, running wire is not so specialized. Typical installations include studded drywall walls, drop ceilings and concrete or cinder block walls. Running wire across and through such environments generally involves only a few types of fasteners and runways.



2. Specially shaped staples, such as these, are used for fastening wire.

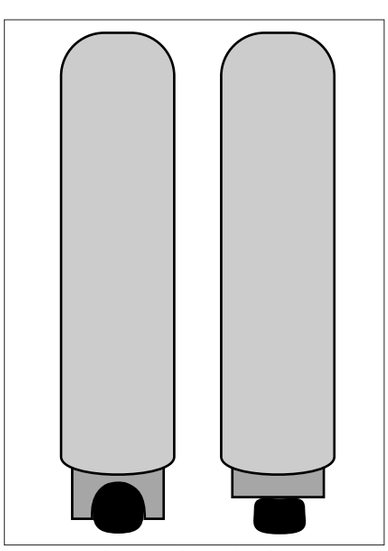
The most common fastener is the staple gun. It's fast, effective and is applicable for most surfaces which include drywall or wood. When choosing to staple, it is critical that the correct staple gun and the correct staple size and type be chosen.

Unlike other staple guns, one designed for wire has a small saddle at the front of the gun to align the wire with the staple. *(See photograph 1.)* If this type of gun is not used, or the correct gun is used incorrectly, the staples can pierce the wire, causing shorting or other problems.

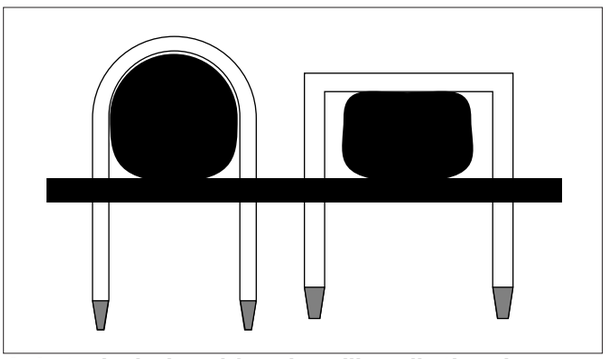
Like the staple gun, the staples are also specially designed. The simplest and most basic is the standard wire staple, utilizing a round, as opposed to the standard square, top. *(See photograph 2.)* When using the correct size, the wire will sit within the inner circumference of the round top of the staple assuring even pressure around the diameter of the wire.

While using the correct staple gun and staple may seem insignificant, not using the correct gun and staple can lead to problems. As stated earlier, the wire staple gun has a guide or saddle to properly guide the wire and position the staple. A standard staple gun does not. *(See illustration 3.)*

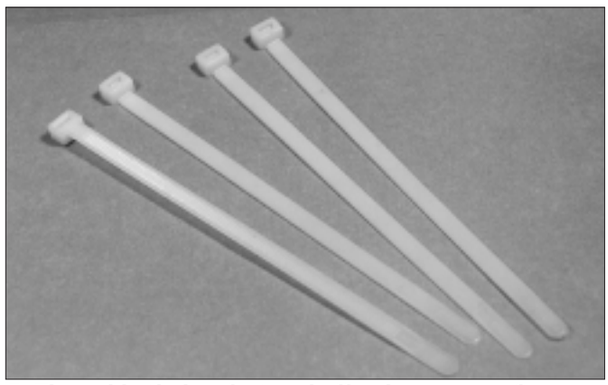
Also, the cradling effect of the wire staple reduces the possibility of wire damage by applying holding pressure evenly around the wire or cable's



3. A staple gun for wire has a small saddle to align the wire with the staple. A standard staple gun does not.



4. A staple designed for wire will cradle the wire correctly. An incorrect staple will crush the wire and can cause problems later down the road.



5. The cable tie is a fast and effective means of bundling and fastening cable and wire.

circumference. In using a standard staple, the flat top tends to crush the wire and places most of the holding force at one point on the wire. Eventually, vibration and building movements will cause the standard staple to work its way through a wire's insulation while the cradling effect of the wire staple will hold the wire without damage. *(See illustration 4.)*

To further assure that wiring is not damaged, staples with fiber or plastic insulating tops are available. To further reduce the likelihood of damaging the wire through stapling, never staple bundles or groups of wire or cable. Each wire or cable run should be stapled individually. Staples should be placed at 12" to 18" intervals along a wire run.

Another common wire fastener is the cable tie. *(See photograph 5.)* The cable tie is a fast and effective device for neatly bundling groups of wires or attaching wire/cable to conduit, tresses or other objects where other fasteners may not work. To use, the tie is wrapped around a group of wires/cables. One end of the tie is then fed through a self locking block found on the other end and then pulled tight. The excess tie should be cut to make for a professional appearance.

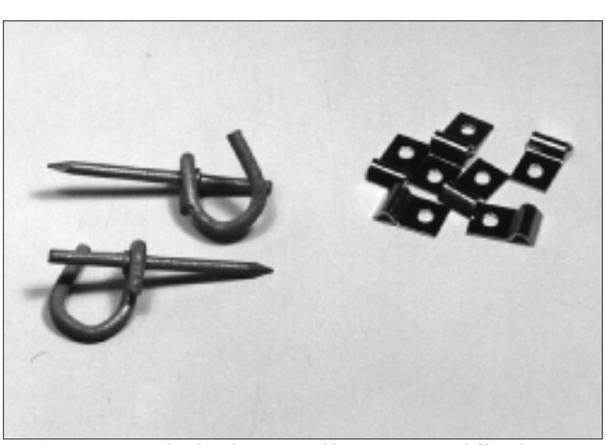
In some instances, the excess can be fastened to a wall or ceiling via screws or nails for hanging the bundle of wires/cables. Cable tie hangers do exist, however, that incorporate a nail/screw hole to the cable tie for fastening to a wall or ceiling.

Many situations and circumstances demand that the wire/cable be mounted to the surface of the wall or ceiling. This is most common where cinder block or concrete walls are concerned. While running the wire through conduit is the most ideal method, cost considerations usually dictate some other form of running the wire. And as always, there is more than one way to accomplish this, depending on the surface of the wall or ceiling.

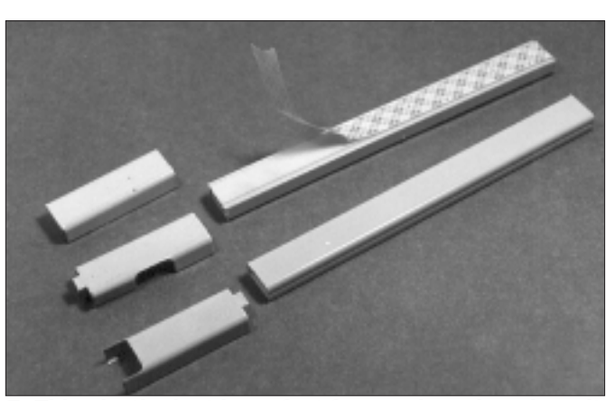
The most common are the simple wire hangers made of metal or plastic which are capable of holding one or more wires based on the size of the hanger. *(See photograph 6.)* Installing the hangers usually involves drilling and placing a screw anchor into the wall and then fastening the hanger.

Along this same avenue is a metal hanger that incorporates its own fastener. Looking similar to a nail with an added metal or wire loop, this hanger can be driven into wood (joists and tresses for example) or into the mortar joints of cinder block walls. Once the hangers have been hammered into position the wire/cable can be run and then cable tied to the hanger.

Another option for surface mount wiring where aesthetics is of concern is the plastic or metal surface mounted wire molding or conduit. *(See photograph 7.)* Made by various manufacturers, these raceways make an attractive and clean job out of wire running. These products come with either an adhesive back (for smooth, non-porous surfaces), or are fastened to the wall by anchors and screws.



6. Two types of wire hangers/fasteners. While these ones are made of metal, many are made of plastic.



7. This plastic duct is perfect for running wire where it must be surface mounted. Notice the double sided tape used for easy mounting and the small metal channels used for connecting the lengths of duct.

BEGINNER'S CORNER

Finding Correct Keys

by Eugene Gentry

What happens if you are a new locksmith and someone brings in a lock with no identification and they want to have a new key made? Well, what happens is that you spend a lot of time going through all your key blanks to find the correct blank that will work. When I first started as a locksmith, I would have given my eye teeth to know what blank would fit a camper, garage door or electric box.

While most of the locks for campers, garage doors, electric boxes, etc. are or were purchased from a major manufacturer such as Chicago, Yale, National Cabinet Locks, Corbin, Hudson, Fort, ESP, etc., they are often hard to identify because there are no names on the lock. In some cases it comes down to contacting the manufacturer of the product and asking who their lock source was. Steel Case office furniture, for example, uses Chicago locks and cylinders almost exclusively. Hon file cabinets are typically Hudson locks.

While no list is ever complete, Table 1 below shows some typical keyways used on various types of locks.

Another problem locksmiths run into is finding a blank that is comparable or similar to an original keyway. For example, the Kwikset keyway is a pretty universal residential keyway and its key will fit into many other manufacturers locks; Master (Dexter) and Weslock for example.

This type of crossing should not be a common practice, however. Every manufacturer has their keyblanks made to specifications that exactly match their lock. Using the correct keyblank assures that the key is properly seated against the designed lands for the lock system. Other blanks my work well at times, but incorrect milling and lands only offer future trouble in duplicating and keying. In the event you find yourself without the correct blank try a few of the comparison blanks listed in Table 2.

AR1=SE1	MD17=DE7
DE3=B1	NA5=DE7=IN3
DE7=IN3=KW1	NA6=NA5
IN3=KW1=DE7	OL1=DE7=IN3
IN8=Y11	RO1=Y11
IN34=NA5	RO6=RO7
KW1=DE7=IN3	RO7=RO4
L1=L4	RO9=RO1
M1=M10	

Table 2

	Cole	Ilco	Taylor	Star		Cole	Ilco	Taylor	Star
Bicycle Locks	AM1	I041C	41C	JU1	Gas Cap	B1	1098GX	—	HBR3
	CL1	1023	123	5CL1	Boats	B1	1098GX	—	HBR3
	M10	1092N	92N	5MA5		NA12	1069LB	174BA	5AU2
	VR6	L67A	—	—	Tool Box	B1	1098GX	—	HBR3
	Y52	997X	7X	4YA6		CO26	1000V	20V	LCO7
Desks-Cabinets	AP5	100AM	F41M	CG3		Y11	H1054L	—	—
	L1	1054MT	54MT	5IL11		Y12	H1122F	H7F	—
	NA12	1069LB	174BA	5AU2	Mail Box	BO1	R1003M	22B	5BO1
	RO9	1069N	174J	RO6		CO105	1003D	22R4	—
	SL1	1120D	120D	SL1		CO106	1003M	22R14	5AU1
	Y11	H1054L	—	—		Y14	H1122AR	HRO7NX	—
	Y12	H1122F	H7F	—		NA12	1069LB	174BA	5AU2
	Y103	K1122B	L54K	—	Freezer	CG16	1054UN	41RB	IL10UN
Campers	BN1	K1122D	L54P	BN1		RO1	1069	62	RO1
	IN8	L1954B	L54B	IL5		RO6	1069-54	174H	—
	IN10	Il41H	111TS	—		Y12	H1122F	H7F	—
	IN28	—	—	—		Y103	K1122B	L54K	—
Garage Door Openers	CG1	1041G	41G	CG1	Suitcase	M1	1092	92	MA1
File Cabinets	CG14	1041Y	41Y	5CG4		Cole	Ilco	Taylor	Star
	CO105	1003D	22R$	—	Moped	M12	1092DS	92F	4MA7
	CO106	1003M	22R14	5AU1	Screen Door	PZ1	—	—	—
	SC6	1307A	307A	SH2	Copiers	RO6	1069-54	174H	—
Garage Doors	L1	1054MT	54MT	5IL11	Sprinkler Box	B1	1098GX	—	HBR3
	Y1	BKZ1	—	—					
	Y1C	—	—	—	The Club	DA22	X6	X6	DA4
	T4	1141GE	111GE	5TA4		JA73	X7	X7	DA3

Table 1

Cover Feature

STRIKING APPLICATIONS

Only by treating a doorway as a system will you be able to provide full control of the opening and provide for a proper electric strike.

by Steve Gebbia

There is a great deal more to an electric strike installation than just the strike itself. For an opening to be properly controlled by an electric strike, it should be thought of as a complete system. The door and frame, door hardware, electric strike, and electrical components must all work together. Only by treating it as a system will you be able to provide full control of the opening.

The choice of electric strike will be determined by :

- The type of lock on the door
- The size and material of the door frame
- The electrical requirements of your system
- How the door will be used

Addressing these issues, in the order they are listed, will narrow your choice of strike down to the one or two units which are most appropriate for your needs. (Since a particular electric strike may be produced by more than one manufacturer, the issue of brand is left up to you.) *(See photograph 1.)*

THE LOCK

The locking hardware on the door is probably the most influential factor when selecting an electric strike. This is because there is such a wide variety of latch sizes and configurations available. It is vital that the strike is able to capture and release the latch properly.

Cylindrical Knoblocks

When using an electric strike with a cylindrical knoblock, remember that most strikes are designed for use with latches up to 1/2" long. Many Grade 1 locks have 3/4" latches which require strikes that will accommodate their extra length. Some also have an anti-friction lever to reduce wear, provide smooth operation, and extend the life of the latch unit. The strike will need to allow room for this lever as well.

Deadlatch units can cause problems with electric strikes, particularly when using Grade 2 or Grade 3 locks. When used with certain strikes, the keeper can wedge between the latch and the deadlatch pin. This will damage the deadlatch unit, the electric strike, and, possibly, the lock. For this reason, it is important that the strike is properly adjusted when used with a deadlatching lock. For greater durability, you may want to specify a strike which is adjustable - especially for high traffic openings.

Mortise Locks

Mortise locks are available in such a wide variety of functions and latch configurations that it can get confusing trying to select the proper strike. There are specialized strikes for mortise locks and tubular deadbolts. They are of a modular design, with several scalp plates and internal options to accommodate different latch and bolt arrangements.

There are several things to consider when selecting a strike for a mortise lock :

Is there a deadbolt? If so, do you want it to be released by the electric strike?

An electric strike which releases a deadbolt has a trigger that the bolt strikes as the door closes. This trigger releases the strike's keeper allowing it to close and capture the deadbolt. The keeper will stay in the open (unlocked) position until the deadbolt hits this trigger. It is important that the deadbolt remain extended at all times if it is to be released by an electric strike.

Some mortise locks have a 'panic-proof' function that retracts the deadbolt when the inside knob or lever is turned. A lock with this function will prevent the strike from operating as intended, and changing the function of the hardware or purchasing all new hardware may be necessary.

Another style of strike has a cutout above the keeper to accept the deadbolt. The deadbolt must be unlocked manually with this type of strike - it cannot be released electrically. Some customers like this because it allows them to use the deadbolt for added security at night.

Is the latch below the strike centerline?

This is very important. By knowing the position of the latch in relation to the centerline of the strike, you can specify an electric strike that allows for any offset of the latch and still fit the existing frame prep without major modification.

Is there an auxiliary deadlatch arm?

The strike will need to provide a beveled edge for the deadlatch to ride up on and a flat surface to hold it retracted. Without these, the deadlatch may prevent the door from closing and latching properly.

Is there a latch, but no deadbolt?

If there is a latch only, or a latch and deadlatch, you may be able to use an electric strike designed for cylindrical knob locks. However, keep in mind that mortise locks typically have latches 5/8" to 3/4" long. Make sure that the strike you choose will accommodate this extra length.

Narrow Stile Glass Door Locks

Currently, there is no electric strike that works with deadbolts on narrow stile aluminum doors. If you need an electric strike on a door which has this type of lock, you will need to replace the deadbolt with a deadlatch style lock.

The main considerations here are that it fits within the door frame and allows the latch to extend fully. Make sure

1. The door must be viewed as a system.

that the strike will completely cover any existing strike opening. The strike must also provide an angled surface for the deadlatch arm as well as a flat surface for it to rest on.

Exit Devices

Rim, mortise, and vertical rod type exit devices can all be released by an electric strike. Each style of device, however, has its own special requirements.

An electric strike for a rim device will be semi-mortised into the door frame or mullion. The body of the strike sits within the frame, while the face plate surface mounts to the stop portion of the frame. Because this is a Grade 1 strike, you will need extra depth within the frame. The most important measurement, though, is the clearance from the edge of the active case to the surface of the door frame or mullion. Usually, a minimum of 1" is required but this will vary with manufacturer. These strikes are available with several different thickness face plates to accommodate different clearances. They may cause conflicts with the ADA because the faceplate extends into and reduces the width of the opening. *(See photograph 2.)*

A mortise exit device latch engages the door frame the same as any other mortise lock. The same considerations that apply to mortise locks also apply to mortise exit devices.

Vertical Rod exit devices are available with surface mount or concealed rods. Concealed rod devices generally cannot be released with an electric strike. This is because of their unusual method of latching.

Surface mount vertical rod devices can be released with an electric strike, but modifications are required for proper operation. Most vertical rod devices have a top latch with a hold-back function. On these units, the top latch holds the rods in the unlocked position until the door closes. When the door closes, the top strike releases the latch allowing the rods to fall and relatch the door. This top latch must be replaced with a pullman style latch. A pullman latch has no hold-back, allowing the latch to extend as soon as the crossbar is released. Also, the bottom rod and latch must be completely removed. The strike mounts to the header portion of the door frame the same as strikes used with rim devices. The critical dimension is the clearance between the top latch case and the surface of the door frame.

Remember that the latches on fire rated exit devices are different than those on panic rated hardware. When ordering parts, make sure you know the device rating. Also, some fire rated devices use a top latch with is mounted within the soffit of the frame. There is currently no strike available to fit these soffit latches.

THE FRAME

Electric strikes are available to fit wood, steel, or aluminum frames. The primary difference lies in mounting methods.

A strike for a wood frame must have either an internal solenoid or one which projects from the rear of the unit. A solenoid that mounts atop or below the strike body will interfere with the mounting screws. Of course, this means you will need enough depth to accommodate the added length of the solenoid.

A steel frame may have a strike box and/or be mortar filled. These will need to be removed prior to installation. Many times you can use the existing mounting tabs to secure the strike.

You will need to provide your own mounting surface in aluminum frames. Mounting tabs are available from a variety of manufacturers. Select a strike that has a face plate long enough to cover any existing cut-out.

2. Rim exit devices use an electric strike that may affect ADA compliance.

If this is a fire exit you will need a fire rated strike to maintain the integrity of the fire wall system. A fire wall system is designed to slow the progress of a fire by preventing the free movement of air through the building. Any opening within this fire wall must also provide the same protection. All hardware applied to a fire wall system must carry the same rating as the door and frame to which it is applied. This includes the lock, electric strike, door closer, hinges and any other item attached to the door or frame. In event of fire the door must close and relatch automatically. If using a continuous duty strike, it should be tied into the building's fire alarm system so that it will automatically lock in case of fire.

Failure to follow fire codes is illegal and presents a very real life safety hazard.

THE POWER

Releasing the strike can be accomplished with a wide variety of devices. These range from a simple button to a biometric scanner. No matter which method you plan to use, plan your wiring and installation in advance. Know where you will get your power and where you will locate the release device.

For more sophisticated systems, you may want a strike with a latch position monitor. These strikes have a small switch in the keeper cavity that is activated by the latch. Make sure your system will accommodate this and allow for the extra wiring involved.

Different systems have different voltage requirements. Make sure you select a compatible strike. Also determine where you will run your wires and choose a wire size appropriate to the length of the run.

The People

Knowing traffic patterns and expected usage is vital to properly controlling an opening with an electric strike. If the strike will be released by timer, or it is a high traffic opening, specify a continuous duty strike.

In order for an electric strike to properly secure an opening, the door must close and lock after every use. A door closer and a storeroom function lock are essential.

For added security a latch protector or an astragal can be used. However, many strikes are not flush with the face of the door frame. There are latch guards and astragals designed specifically for use with electric strikes.

As you can see, there is a lot to consider when selecting an electric strike. Take the time to visit the site and 'scope it out' in advance. Armed with the knowledge of what to look for, you will find a strike to fit the frame, secure the opening, and operate the way you and the customer intend it to.

Cover Feature

HEADACHES OF MORTAR FILLED FRAMES

by Tom Seroogy

One of the more demanding tasks in electric strike installation is the prepping of a mortar filled steel frame. For years the installation and application limitations posed by these frames have created problems for end users, installers and electric strike manufacturers alike.

For end users, having the frames modified for electric strike work often meant spending lots of money. The mortar dust after the installation often clogged the working parts of the strike making them unreliable and hard to maintain. In essence, what the customer ended up with was an expensive installation that raised more problems than the intended security or control was worth.

For installers, finding easy methods, techniques and reasonably priced equipment was a battle. Installation problems caused by a hard to cut frame and a mortar fill were compounded by having only a small selection of strikes that fit easily into a small cutout and that could take a degree of mortar dust without failure.

Manufacturers, of course, had their own problems. Trying to create a strike package that fit into a small cutout, resisted failure due to mortar dust, and maintained the strength and integrity of the units they had been producing for years, was a formidable task that, I'm sure, kept their engineers up late.

From all market corners (end user, installer, and manufacturer) mortar filled steel frames have been the epitomy of frustration. And for good reason. Let's look at what it takes to install a strike into one of these frames.

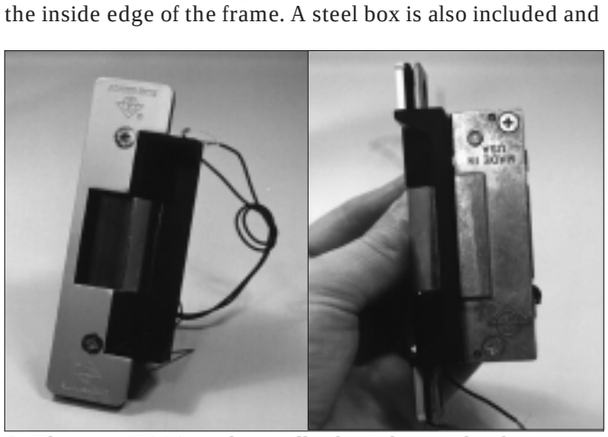
For the most part, the strike areas of these steel frames are typically cutout for a standard ANSI, 1-1/4"x4-7/8", strike plate. Steel strike plate mounting tabs are welded to the inside edge of the frame. A steel box is also included and

1. This HES 1003K electric strike has the solenoid tucked away in its lip, making it virtually impervious to mortar dust problems. The small chassis area makes it ideal for mortar filled steel frame installations.

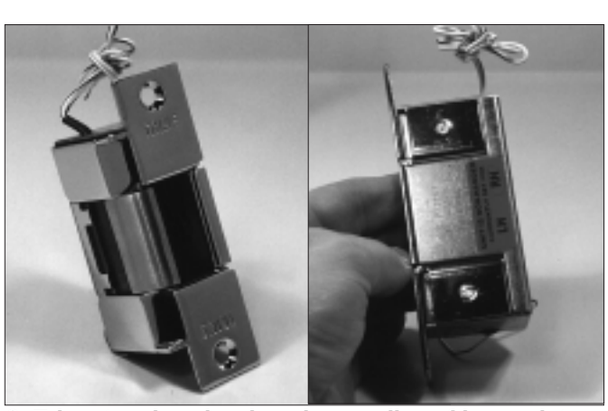
is either an integral part of the mounting tabs or is welded separately to the inside frame.

When the door is installed, mortar is poured down into the jambs and, sometimes, into the header. The mortar flows down into the frame and around mortar anchors attached to the frame, keeping it firmly in place. The mortar is prevented from flowing into and clogging up the strike area by the presence of the steel box.

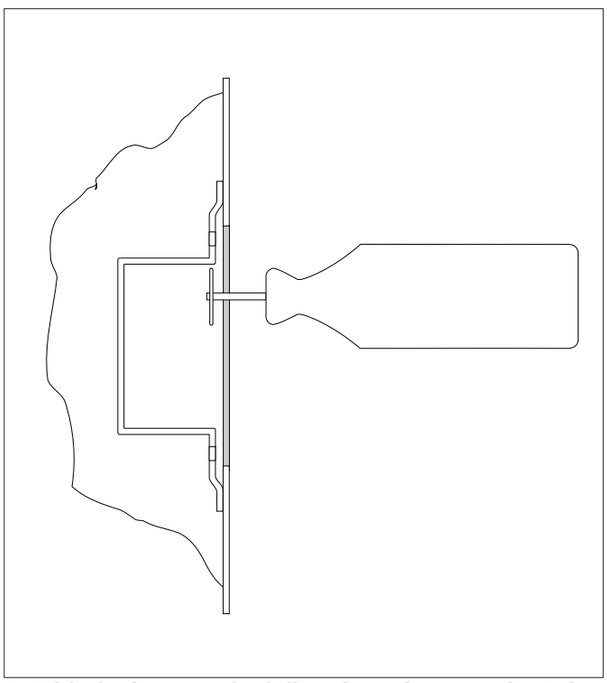
The mortar and the steel box form the essence of the problem for a strike installation. While the box keeps the area free from mortar, it is much too small to accept the body or chassis of an electric strike. Therefore, the box must be removed. Removing it, however, is difficult due to the confined working area and the fact that it is surrounded by mortar. Once the box is removed, the mortar must be removed and the mortar inside the frame treated to prevent dust.



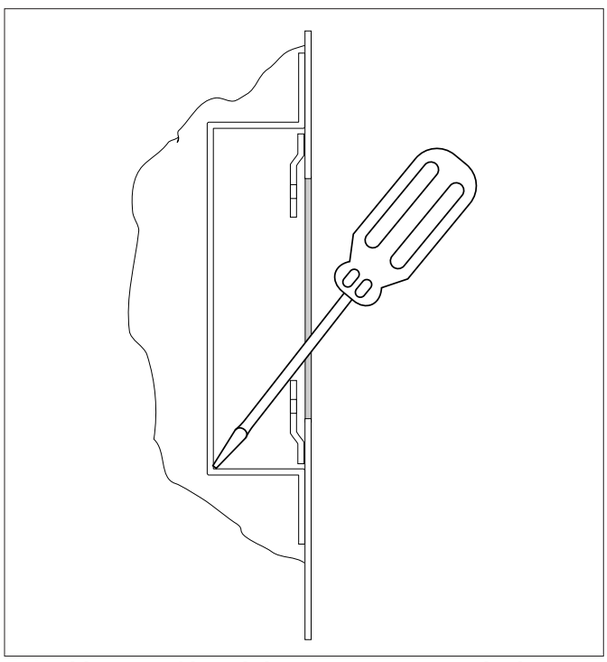
2. The new 7000 series strike by Adams Rite features a whole new design that can be easily used for mortar filled steel frame applications.



3. Trine, too, has developed a new line of heavy duty strikes. This model EN400 makes easy work of mortar filled steel frame applications.



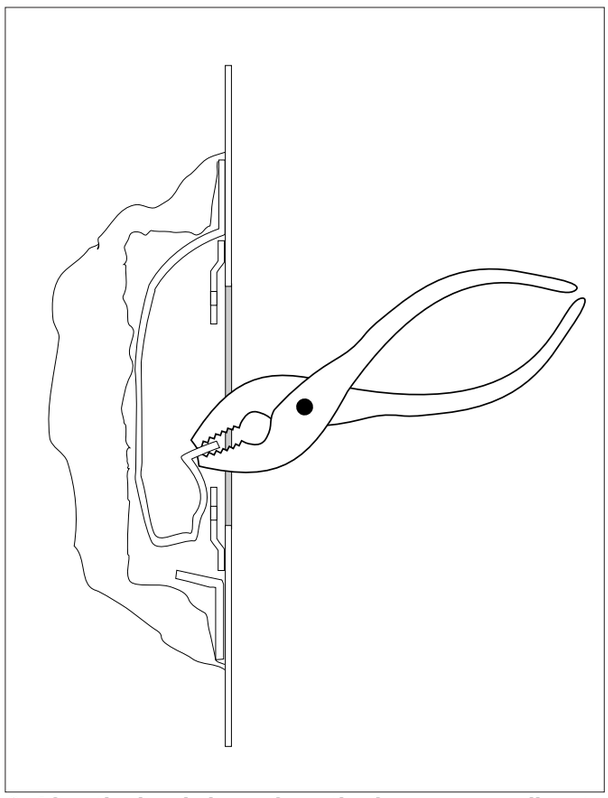
4. With the box attached directly to the mounting tabs, use a cutting wheel to cut the box loose for removal.



5. In this type of box, it is necessary to cut the box loose from the frame. This can often be accomplished by a chisel or screw driver.

The first part of prepping the door for an electric strike is to find a strike. All the major strike manufacturers now carry strikes for the mortar filled frame environment. Hanchett Entry Systems (HES), Adams Rite, Folger Adam, Trine, Rofu and Rutherford all carry compact and reliable strikes at a reasonable cost. *(See photographs 1, 2 and 3.)*

Most noteworthy in these strikes is the compact and dust



6. After the box is loose from the frame, use a pliers to remove it from the strike cavity.

protective nature of the solenoid or coil area. Additionally, all of these manufacturers offer strikes with an ANSI faceplate. Such adaptations make them much easier to install and much more dependable in a mortar filled steel frame installation.

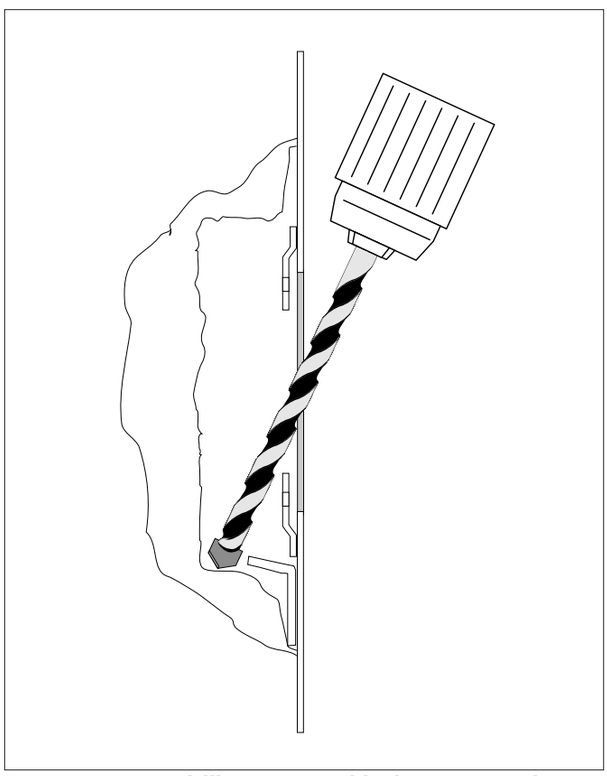
After the strike is chosen, its time to tackle the frame. First measure and cut for the lip backset dimension. This can range from as deep as 1-11/16" on a Trine model to as shallow as 5/8" on an Adams Rite. If you're not inclined to do a lot of electric strike installation, a Dremel tool with a cutting wheel is an effective way to make this cut. If installing a lot of electric strikes, however, a die grinder with cutting wheel or a plazma cutter are a more efficient and effective means for making these cuts. Once the lip area has been cut, clean it up with a file.

With the lip area removed, there is more room for tools to gain access for removing the strike's mortar box. As mentioned earlier, there are two methods used in attaching the box. One method attaches the box directly to the strike plate mounting tabs. *(See illustration 4.)* This is the easier of the two box types to remove. Simply take a small cutting wheel and cut the box off at the ends of the mounting tabs. Once the box is separate from the tabs, use a pliers to remove the it from the strike cavity. Some bending and twisting are necessary to pull this piece through the strike hole. Take your time and be careful not to get cut.

The second type of box is actually welded right to the frame. Removing this unit is much more difficult, as few tools can reach the points that need to be cut. If a cutting

Continued on page 39

Continued from page 36



7. Use a mason drill or mason chisel to remove the mortar from the frame. When done, paint the mortar to limit the dust.

tool can reach the necessary spots for cutting, use them. However, in most cases a chisel or old screw driver can be placed in the corners of the box. Striking the chisel or screw driver cuts the box and separates it from the frame. *(See illustration 5.)*

Extreme care should be taken here. Striking the box with a chisel or screw driver may pull at the points where the box is welded to the frame, tearing it from the frame. In some instances this may leave holes or deform the frame surface at the weld spots. Also, remember to wear eye protection!

With the box severed from the frame, use a pliers to remove the box from the strike cavity. The other ends of the box that remain in the door may have to be moved for certain strikes to fit. *(See illustration 6.)*

With the box removed, use a mason drill or a mason chisel to clear away excess mortar. There is no easy or fun way to accomplish this, but be careful not to damage the frame or your existing strike cutout as you do so. *(See illustration 7.)*

Once there is ample room for your chosen strike, apply a coat or two of paint to the mortar still inside the strike area. This will reduce the amount of mortar dust that will get into the equipment.

Cover Feature

STEP IN TIME:

Power Door & Strike Sequencing

by Mike Murray

The number of applications for power door operators continues to grow as A.D.A. legislation takes firmer hold around the country. As the applications grow so does the need to integrate these operators with other door hardware such as electric strikes. Remembering a few fundamentals will go a long way toward preventing problems when using these two products together.

In most system designs, the same auxiliary device will be used to activate the automatic door operator and the electric strike. This can be a card reader, a key switch, keypad, or similar momentary contact switch device. When this is the case it becomes necessary to sequence the activation so that the operator is not trying to open the door against the electric strike. Many electric strikes will not open when such pressure is applied against the retainer portion of the strike.

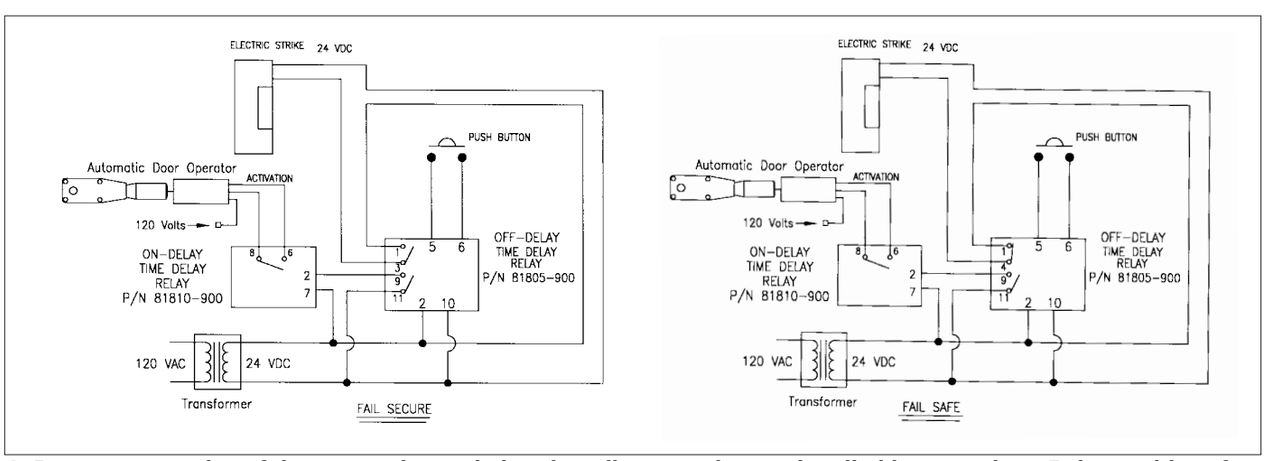
For proper operation it's imperative that the activation of a power door assist and an accompanying electric strike be coordinated correctly.

This sequencing is usually accomplished using time delay relays inserted between the electric strike and the automatic door operator. As shown in illustration one, one relay is used to insure that the electric strike opens before the automatic door operator while the second relay insures that the strike stays open long enough for the operator to move the door past the strike. Dor-O-Matic has designed special interface controls that not only perform this interface function but also provide a power source for the electric strike.

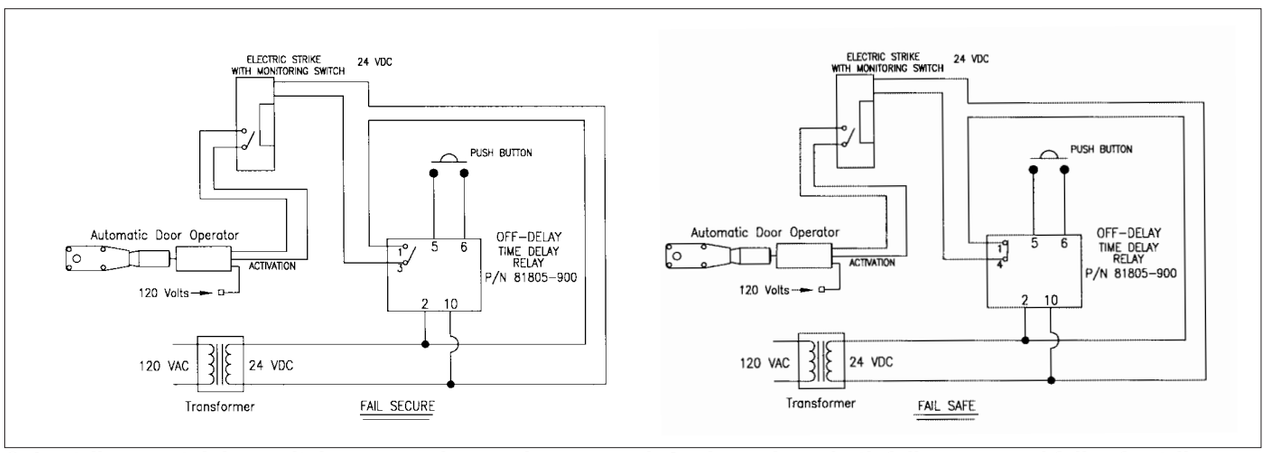
Some electric strikes include a monitor switch that can be used to send the activating signal to the automatic door operator and thus eliminate one of the relays used in the system described above. *(See illustration 2.)* It is important to remember that all automatic door operators are required to have a built in time delay and that this time delay does not start until the activation signal has stopped. Therefore, the signal coming from the monitoring switch must be shut off before the automatic door operator can start its time delay and eventually close the door. If not sequenced properly, the door may remain open for excessive periods of time or not close at all.

Another matter that frequently requires special attention in these applications is the force required to close the door against the electric strike. The types of automatic doors being used for the vast majority of A.D.A. related installations are low energy automatic door operators as defined in A.N.S.I. Standard A156.19. Low energy operators are required to open and close with reduced forces so that they can be used without extra safety devices such as photo beams and guide rails.

Unfortunately, these lower forces can leave the door without enough closing force to get by a stiff electric strike. This is especially true for applications where high stack pressures are present. Some automatic door manufacturers,



1. Proper sequencing of door operation and electric strike operation are handled by two relays. Relay positions for both fail secure and fail safe strike operation are shown.



2. In strikes containing switches, one relay can be removed. Again we have both fail secure and fail safe strikes represented.

like Dor-O-Matic, have designed products that have a "power boost" feature to add extra closing force in the last few inches of closing. If this feature is unavailable, the strike or latch must be adjusted or the stack pressure relieved to insure free closing of the door.

These issues discussed above are not really complicated and can easily be addressed when first laying out the project. One method of addressing interface issues early is to write an operational narrative for the entrance when designing the system. This is a written description of the door's operation during each phase of opening. What will happen when the card reader is activated? What will the strike do; what will the automatic operator do, how is the time delay responding? When will the door close? Is this the sequence desired at all times of the day? This written narrative will uncover questions and problems while they are still easy to address.

Understanding these fundamentals will help you provide an entrance that is safe and secure while being accessible to all. That is a gratifying experience for everyone involved.

For further information contact Dor-O-Matic, Hardware Division at 800-815-1517 or 708-867-8500.

The Shocking Reality Of Electronic Locksmithing

by Jake Jakubuwski

Kenneth Schwartz is the owner of AA Quality Safe & Lock Service, in Cape Coral, Florida. In addition to offering a full range of safe and lock services, Ken also sells, services and installs a variety of electric strikes in answer to an increasing need for security in Southwest Florida. I caught up with Ken at his shop on Del Prado Blvd.

Ken, before we get into the business of electric strikes, would you mind telling our readers how you became a locksmith, and how long you've been at it?

I was in between jobs when I heard my cousin had started a shop. It was growing rapidly and he needed some help. I moved to the (Washington) DC area, applied for the job, and he hired me as an apprentice. After that, I worked about ten years for a large firm in the DC area. During that time I took dozens of classes on all aspects of locksmithing. In March of '84 I moved to Florida and started AA Quality Safe and Lock.

What got you interested enough in locksmithing that you decided you wanted to make a career of it?

Actually, becoming a career locksmith was something that never crossed my mind. I thought: "Hmm, A locksmith? That sounds interesting." Besides, as I said earlier, I was between jobs and felt being a locksmith was as good as any other way of making a living. Then, a strange thing happened. The more I learned, the more I loved the job. And, you know what, Jake? That's as true today, as it was 21 years ago.

How'd you wind up in Sunny Southwest Florida after your beginnings in the D.C. area?

My parents retired here, and I used to visit them frequently. I always liked the area and when I felt the time was right, I decided that I'd like to start my own business here.

Ken, as a safeman, a locksmith and an electronic locksmith, what do you perceive to be the most challenging aspect of your chosen field?

I would have to say it's a toss up between access control and safe penetration or opening. However, I believe that electronics will be a big part of both in the future. As a result, I think the challenge is going to be in adapting to the new products and service techniques as they come along. You know, the same challenge it's always been. Being challenged to change!

O.K., Ken. Obviously, you're convinced that electronics is going to play a vital roll in the future of locksmithing. And, although electric strikes have been around for years, can you tell us why you think today's average locksmith should be considering adding electric strikes to their list of services if they don't offer the service already?

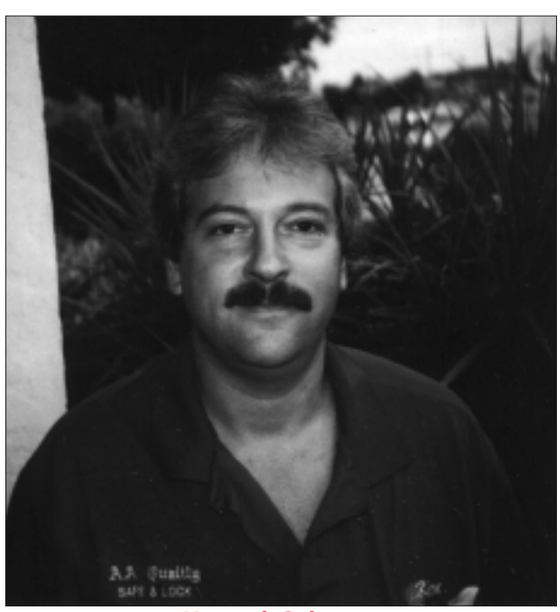
> *Locksmith Ken Schwartz sees electronics as an inevitable part of the future. Locksmiths who view themselves as security professionals need to get involved.*

If the average locksmith does not move along in the same direction that electronics locks are moving, that locksmith will become an anachronism in the very near future. That doesn't mean they won't have a trade to pursue - it simply means that they'll very limited in their ability to make a decent living.

What suggestions would you give to the locksmith that wants to enter this phase of locksmithing but is electronics shy or feels they just couldn't do electrical work?

First thing they need to do is get over the fear. To start with, in dealing with electronic locks, the voltage is very low (usually 12 or 24 volts) and the wiring is generally as simple as it can get.

Next, I would suggest that they go to as many trade shows as possible. Talk to the factory reps. Get as much literature about as many different types of



Kenneth Schwartz
Owner of AA Quality Safe & Lock Service

locking devices as possible and learn as much about those products as they can.

Talk to other locksmiths that are already installing electronics - get their input. Take a basic electronics course at the local community college or Vo-Tech center. In other words: start learning and don't stop.

Assuming the locksmith has the ability and desire to do this type of work and, where required, has obtained the proper permits to do it, where would they look for jobs of this sort? Can you suggest a few simple ways they might promote their new service?

Office buildings are a good source of electronic strike work. And, convenience stores are turning more to electric strikes for after-dark traffic control and security.

Large industrial buildings, schools and governmental agencies are all good prospects for electric strike work.

Call and find out who the person in charge of maintenance is, or who is responsible for security. Introduce yourself. Let them know that you are available and that you handle electric strikes, etc. Offer to send them your card and literature, if you have any. Yellow page directory advertising can be effective. So can direct mail fliers. And, of course, there's always knocking on doors.

Whatever you do to try to build your electronics business, be consistent.

Ken's given the fact that there are millions and millions of non-electric and non-electro/ mechanical locks that need servicing now, and will need servicing for a long time to come, why do you think a locksmith should consider expanding into the electronics area?

Why shouldn't they? They're already in the security business aren't they? Electronics is the "next step," so to speak. Whether a so-called regular locksmith becomes an electronic locksmith will ultimately depend on how good a living they want to make.

Let's face it, we're all in business to make money. Electronics can do that for the locksmith willing to expand their horizons a little.

Considering that today is yesterday's future, what do you think tomorrow holds for locksmiths in general?

Sometimes it really scary when I read about licensing and legislation for locksmiths. Yet, I 'm sure those things will be a reality in our future just like electronics. I only hope we're all smart enough to see to it that the licensing and legislation is positive in nature-and benefits us all.

But, overall, I think the future looks good as long as we keep our skills and learning current with the advances that we will see in security areas that we have not even begun to imagine.

I think electronics and electromagnetics are still in their infancy and we're only glimpsing what is in store for this industry in the future.

But, I feel certain that if we keep pace with the changes that are sure to come, we'll be better off.

by Sean B. DeForrest

REAL TIME SERVICE WITH EDI

Faster and easier access to product pricing and availability have future locksmiths depending on EDI.

EDI (Electronic Data Interchange) technology has been around for quite some time, but it has only been the last ten years that we have seen this technology utilized in the locksmith industry. American Lock & Supply and Clark Security Products were two of the first wholesalers to introduce this technology to locksmith customers in the early 1980's. EDI allows a customer to electronically send or receive information to his/her wholesaler. The customer uses a computer (generally a personal computer) and then sends information via communication software over telephone lines where it is received and "read" by the wholesaler.

In our industry, the first uses of EDI were to send "orders" to the wholesaler. There are several advantages to order processing in this fashion. First, a locksmith can check stock on line by actually looking at what the wholesaler has in stock. Second, it drastically reduces errors because it eliminates misunderstandings between a customer and the inside sales department of the wholesaler. Third, many wholesalers offered discounts for customers using EDI because it reduced their own internal costs.

Since introduced in the 1980's the use of EDI systems has spread and are now available through many wholesalers. More importantly, the cost of providing these systems has plummeted and, at the same time, the speed of processing data has dramatically increased. One of the biggest bottlenecks in EDI processing was the speed at which data was transmitted across the telephone lines. Today's modems (which transmit the data over phone lines) are at least eight times faster than the ones available in the mid 1980's. In addition, the technology "boxes" which allowed one computer to interface with another became much more effective and cost efficient. What was once a very cumbersome process has become tremendously more efficient and thus more effective to use.

With this new processing speed it suddenly became very easy and quick to send orders and perform a variety of tasks utilizing portions of the wholesalers data base. Today's EDI systems do a variety of tasks. For instance, you can check stock on an item and, for those wholesalers with multiple locations, look at the inventory at all locations in "real time." In addition, some systems allow you to order off line, that is, to build an order on your own computer and then send it to the wholesaler when you are ready. Most EDI systems will then

With the proliferating use of the computer in the locksmith industry, companies such as American Lock & Supply are making access to supplies and materials a snap through the use of EDI.

Continued on page 46

Continued from page 44

transmit back a confirmation of what will be shipped. Other functions include checking the status of your account which would include payments and sales histories. Still others allow you to check up-to-date scheduled deliveries for products that the wholesaler has on order. All of these tasks and more can be performed at blazing speed.

The technology costs will only continue to drop, thus wholesalers will be adding more and more options to their EDI offerings. In the near future look to see systems which will have catalog and template information on line which can then be down loaded at the customer's place of business. In addition, more and more EDI systems will network with the locksmiths own software forming a bridge which automatically creates orders for the locksmith and sends them to the wholesaler. Such systems have been in place with industry giants such as WalMart for years and now this technology is becoming affordable to our industry.

One of the more "Cutting Edge" functions that is being introduced includes the use of a bulletin board which would allow a customer to read the most current industry information through his personal computer. A wholesaler puts on the bulletin board the latest price increases, product announcements or promotions and immediately it can be viewed by any customer that is on line. In the old days you waited for the wholesaler's sales representative to bring you up to date on this information. Now you can access this information quickly virtually 24 hours a day. One of the more exciting new options is making electronic mail available via EDI technology so customers can send and receive messages from their wholesalers (or other customers!).

It is hard to predict where this new technology will take us but certainly it will make information flow to the ultimate customer faster and more efficiently than ever before which, in turn, will create more sales opportunities for our industry.

The author is President/CEO of American Lock & Supply, Inc.

DISTRIBUTOR GUIDE

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	PRODUCTS SOLD					REGIONS SOLD IN						VALUE ADDED SERVICES						MISC.				
	AUTOMOTIVE PRODUCTS	BUILDER'S HARDWARE	ELECTRONICS	LOCKSMITH PRODUCTS	SAFES	NORTH EAST	SOUTH	MIDWEST	WEST	NATIONAL	CANADA	TECHNICAL SUPPORT	SHIPPING WITHIN 24 HOURS	MARKETING SUPPORT	TRAINING SEMINARS	WILL CALL AVAILABLE	OTHER (see legend below)	MINIMUM ORDER (blank if none)	PRE-PAID SHIPPING MINIMUM	CREDIT CARDS ACCEPTED	CIRCLE RAPID REPLY NUMBER
Access Safe & Supply, Ltd. Burlington, Ontario. Canada Phone 800-268-9033 Fax 905-319-0366				■	■					■	■	■	■			■			$25		Y	369
Ace Lock & Security Supply Union, NJ Phone 800-ACE-LOCK Fax 800-ACE-FAX4	■	■	■	■	■					■		■	■	■	■	■			$25	$500	Y	370
Acme Security Systems San Leandro, CA Phone 800-348-2263 Fax 510-483-4500		■	■							■		■	■			■					Y	371
Acme Wholesale Distributors, Inc. New Orleans, LA Phone 800-788-2263 Fax 504-837-7321 7 Branch Locations. Call for the location nearest you.	■	■	■	■	■		■	■	■			■	■	■	■	■			$25	$500	Y	372
Allied Locksmith Supply Youngstown, OH Phone 800-544-2102 Fax 216-726-0865	■			■						■	■	■	■	■	■	■		A 1		$500	Y	373
Ambassador Wholesale Safe Distributors Lake Hiawatha, NJ Phone 800-999-5510 Fax 201-402-1447					■					■		■	■	■	■			B 2		500 LBS.	Y	374
American Lock & Supply, Inc. Anaheim, CA Phone 800-854-8775 Fax 800-833-1397 15 Branch Locations. Call for the location nearest you.	■	■	■	■	■					■	■	■	■	■	■	■		C 2		$350	Y	375
Andrew's Wholesale Lock Supply Lebanon, PA Phone 800-544-0519 Fax 717-274-8659	■									■		■	■								Y	376
Anytime Securtity Products Hermosa Beach, CA Phone 800-539-2427 Fax 619-726-4363				■						■	■	■	■	■				D 3			N	377
Aristo Sales Co. Long Island City, NY Phone 800-221-1322 Fax 718-937-5794	■	■	■	■	■	■						■	■		■	■		A	$50	$300	Y	378
Armstrong's Lock & Supply, Inc. Atlanta, GA Phone 800-726-3332 Fax 800-998-1733 5 Branch Locations. Call for the location nearest you.	■	■	■	■	■		■					■	■	■	■	■		C B	$25	$500	N	379
Bell's Security Sales, Inc. Bloomfield, NJ Phone 800-772-6666 Fax 201-743-3761	■	■	■	■	■					■		■	■					E 2	$10	$600	Y	380
Blaydes Lock Co. Washington, DC Phone 800-BLAYDES Fax 202-832-1359	■	■	■	■						■		■	■	■	■	■			$35	$450	Y	381
Boston Lock & Safe Co. Brighton, MA Phone 800-252-5757 Fax 617-787-3425		■	■	■	■					■		■	■	■	■	■					Y	382
Boyle & Chase Hingham, MA Phone 800-325-2530 Fax 617-335-5342		■	■							■			■								N	383
Canada Lock Products, Ltd. Toronto, Ontario, Canada Phone 800-268-1306 Fax 416-248-9945 2 Branch Locations. Call for the location nearest you.	■	■	■	■	■						■	■	■	■	■	■		A B F	$50		N	384
Clark Security Products San Diego, CA Phone 800-542-5625 Fax 619-565-4605 9 Branch Locations. Call for the location nearest you.	■	■	■	■	■					■	■	■	■	■	■	■		C 2			Y	385
Commonwealth Lock Co. Cambridge, MA Phone 617-876-3301 Fax 617-661-3168	■	■	■	■	■					■	■	■	■	■		■				$500	Y	386
Craftmaster Hardware Co., Inc. Hackensack, NJ Phone 800-221-3212 Fax 201-646-0181	■	■	■	■						■	■	■	■	■				A E		$450	Y	387

A–*Computer Stock Checking* **B**–*Co-Op Advertising* **C**–*Computer Access Programming* **D**–*MasterKey Codes* **E**–*Experienced Phone Reps.*
F–*Merchandising* **1**–*Fast Pay Discount* **2**–*Full Line Inventory* **3**–*High Security Specialists*

MINI SECTION

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DiMark International, Inc. Santa Maria, CA Phone 800-235-2435 Fax 805-928-8034	■			■	■					■	■	■	■	■				A	$25	Varies	Y	388
Door Closer Service Co, Inc. Washington, DC Phone 800-566-0606 Fax 202-529-7826		■								■		■	■								Y	389
Electric Lock Supply Los Angeles, CA Phone 800-858-1726 Fax 310-568-1507			■	■						■		■	■						$25	$3000	Y	390
Eljay Express Wheeling, IL Phone 800-432-1311 Fax 708-480-1383				■						■		■	■	■				B			N	391
EMG Associates Chicago, IL Phone 800-468-3558 Fax 312-649-0787			■							■	■	■	■					1 2	$50	$750	N	392
Farfisa Intercoms Miami, FL Phone 800-806-0227 Fax 305-593-9823			■							■		■		■						$500	N	393
Herbert L. Flake Co. Houston, TX Phone 800-231-4105 In Houston 713-926-3200 Fax 713-926-3399	■	■	■	■						■		■	■	■	■	■	■			$250	Y	394
Fortress Safe & Lock Cincinnati, OH Phone 800-562-0295 Fax 513-772-4397	■	■	■	■						■			■	■						$200	Y	395
Fradon Lock Co., Inc. Syracuse, NY Phone 800-447-0591 Fax 315-472-0958	■	■	■	■	■					■		■	■	■				C 3		$50	Y	396
Garden State Hardware Wholesalers Plainfield, NJ Phone 800-544-0616 Fax 908-753-2040	■	■	■	■	■	■						■	■	■							Y	397
Grace's Wholesale & Supply Division Hastings, NE Phone 402-426-2737 (between 1 & 9 p.m. Central Time)	■	■		■						■	■						■			Depends on product	N	398
R.A. Graham Co. Worchester, MA Phone 800-333-3933 Fax 508-755-6584		■								■			■				■				N	399
Hardware Agencies Limited Toronto, Ontario, Canada Phone 800-268-6741 Fax 800-903-3303	■	■	■	■	■						■	■	■	■					$25	$500 out of city $350 in	N	400
Hardware Sales & Supply Livonia, MI Phone 800-521-0955 Fax 800-272-4409 2 Branch Locations. Call for the location nearest you.	■	■	■	■	■			■					■	■	■	■	■	B D	$50	$500	Y	401
H. Hoffman Co. Chicago, IL Phone 800-323-1918 Fax 708-456-0951 7 Branch Locations. Call for the location nearest you.	■	■	■	■	■			■					■	■	■	■	■	D 4	$45	$500	Y	402
Intermountain Lock & Supply Co. Salt Lake City, UT Phone 800-453-5386 Fax 801-485-7205 1 Additional Branch. Call for location.	■	■	■	■	■					■	■	■	■	■	■	■	■	E	$50	$100	Y	403
JLM Wholesale, Inc. Oxford, MI Phone 800-522-2940 Fax 800-782-1160		■	■	■						■	■	■	■	■		■		F 5			Y	404
A.T. Jones Co. Detroit, MI Phone 800-735-4570 Fax 313-965-1093		■	■	■						■	■		■	■	■		■		$20	$1500	Y	405
Jo-Van Distributors Toronto, Ontario, Canada Phone 800-268-5731 Fax 800-286-5010	■	■	■	■	■						■	■	■	■	■	■	■	G 6 B	$50	$400	Y	406
Kenco Supply Co. Omaha, NE Phone 800-228-2266 Fax 800-228-4175	■	■	■	■	■					■	■	■	■	■	■	■	■	H I		$350	Y	407

A–*Friendly Personal Service* **B**–*Computer Stock Checking* **C**–*Fast Pay Discounts* **D**–*Fax Order Discounts* **E**–*Computer Order Entry*
F–*Electrical Advice Available* **G**–*USCAN "Exclusive Brand"* **H**–*Free Catalog* **I**–*In-House Custom Masterkey System* **1**–*24 Hour Support*
2–*Dealer Programs* **3**–*Custom Modifications* **4**–*LSDA "Exclusive Brand"* **5**–*ADA Approved Hardware* **6**–*Special Order Availability*

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Key Mart, Inc. Stuart, FL Phone 800-228-7755 Fax 407-220-7920		■		■						■			■	■						Y	408
Key Sales & Supply Co., Inc. Detroit, MI Phone 800-445-(KEYS) Fax 313-931-7758	■	■	■	■	■					■	■		■	■			■		F.O.B. Detroit	N	409
Kramer Boys Supply Co. Trenton, NJ Phone 800-222-2692 Fax 609-586-0512	■	■	■	■	■					■	■		■	■						Y	410
Lockmasters, Inc. Nicholasville, KY Phone 800-654-0637 Fax 606-885-7093		■	■	■						■	■		■	■						Y	411
Locks Co. Miami, FL Phone 800-288-0801 Fax 305-949-3619	■	■	■	■	■					■			■	■		■	■	A B C	$25	$450	Y	412
Lockwise Products, Inc. Miami, FL Phone 800-447-6616 Fax 305-623-9564	■	■	■	■	■					■			■	■	■	■	■	1,2 3,B C	$35	Varies	Y	413
Mayflower Sales Co., Inc. Brooklyn, NY Phone 800-221-2052 Local 718-622-8785 Fax 718-789-8346	■	■	■	■	■					■			■	■	■	■	■		$25	$125 $350 $500	Y	414
Maziuk & Co., Inc Syracuse, NY Phone 800-777-5945 Fax 315-472-3111 1 Additional Branch. Call for location.	■	■	■	■	■					■	■		■	■		■	■	1 A	$10	$300	Y	415
McDonald Dash Locksmith Supply, Inc. Memphis, TN Phone 800-238-7541 Fax 901-366-0005	■	■	■	■	■					■			■	■	■	■	■			$500	Y	416
McManus Locksmith Supply, Inc. Charlotte, NC Phone 800-438-6567 Fax 704-332-8664	■			■	■		■							■			■		$35	$500	N	417
Midwest Wholesale Hardware Kansas City, MO Phone 800-821-8527 Fax 800-621-6581 1 Additional Branch. Call for location.		■								■			■	■					$100	$750	Y	418
Mid-South Locksmith Supply Memphis, TN Phone 800-238-6166 Fax 901-795-3475	■	■	■	■	■					■				■			■		$25	$600	N	419
Monaco Lock Co., Inc. Jersey City, NJ Phone 800-526-6094 Fax 800-845-LOCK		■	■							■	■		■						$25		Y	420
J. Nathan Hardware Specialties, Inc. Rochester, NY Phone 800-634-2580 Fax 716-325-7196	■	■	■	■						■	■		■	■			■	A B			N	421
Northeast Lock Corp. Clifton, NJ Phone 800-524-2575 Fax 800-524-2576				■						■	■		■						$25		Y	422
Northwest Lock & Supply Albany, OR Phone 800-359-9425 Fax 503-928-9338	■	■	■	■	■					■			■				■			$350	Y	423
Omaha Wholesale Hardware Omaha, NE Phone 800-238-4566 Fax 800-538-4566		■	■	■						■			■		■		■			$500	Y	424
Orchard Lock Distributors, Inc. Hamden, CT Phone 800-233-2146 Fax 203-624-4083	■	■		■	■					■			■	■		■	■		$35	$350	N	425
Pasek Corp. South Boston, MA Phone 800-628-2822 Fax 800-262-0547		■	■	■						■			■	■			■				Y	426

A–*Priced Packing Lists* **B**–*Volume Discounts* **C**–*Monthly Specials*
1–*Computer Stock Checking* **2**–*Locksmith Service Center* **3**–*Price List on Disk*

MINI SECTION

DISTRIBUTOR GUIDE

This Guide contains a great deal of information about a variety of distributors. Product and Service categories offered are noted on the Guide. Some distributors offer Value Added Services not included in the regular categories, see the "Other" column and legend below.

	PRODUCTS SOLD					REGIONS SOLD IN					VALUE ADDED SERVICES							MISC.				
	AUTOMOTIVE PRODUCTS	BUILDER'S HARDWARE	ELECTRONICS	LOCKSMITH PRODUCTS	SAFES	NORTH EAST	SOUTH	MIDWEST	WEST	NATIONAL	CANADA	TECHNICAL SUPPORT	SHIPPING WITHIN 24 HOURS	MARKETING SUPPORT	TRAINING SEMINARS	WILL CALL AVAILABLE	OTHER (see legend below)	MINIMUM ORDER (blank if none)	PRE-PAID SHIPPING MINIMUM	CREDIT CARDS ACCEPTED	CIRCLE RAPID REPLY NUMBER
Agences W. Pelletier (1980) Inc. Montreal, Quebec, Canada Phone 514-276-6700 Fax 514-276-9413		■	■	■	■					■	■	■	■	■	■	■		C D		Varies	Y	427
E.L. Reinhardt Co. Vadnais Heights, MN Phone 800-328-1311 Fax 612-481-0166	■	■	■	■	■					■	■	■	■	■	■	■		A B		$450	Y	428
R & H Wholesale Supply San Francisco, CA Phone 800-367-5625 Fax 415-863-7046	■	■	■	■						■		■	■		■	■		C E	$35	$250	Y	429
Richmond Industrial Supply Staten Island, NY Phone 800-462-9997 Fax 718-981-5665		■		■						■		■	■		■						Y	430
Rininger Lock & Supply Lemon Grove, CA Phone 619-463-0170 Fax 619-697-2570	■	■	■	■	■					■		■	■		■	■	■	A F		Varies	Y	431
Rudy's Cleveland, OH Phone 800-248-7839 Fax 216-641-0060	■	■		■						■	■		■		■				Varies		Y	432
Safemasters, Inc. Alexandria, VA Phone 800-633-9977 Fax 703-750-1814 10 Branch Locations. Call for the location nearest you.		■	■	■	■					■		■	■	■	■	■	■	1 2			Y	433
Security Equipment Supply St. Loius, MO Phone 800-325-0221 Fax 314-298-8962 3 Branch Locations. Call for the location nearest you			■	■						■	■		■	■				A 3			Y	434
Security Lock Distributors Needham, MA Phone 800-847-5625 Fax 800-878-6400		■	■	■						■	■	■	■	■	■	■	■	4 5			Y	435
Septon, Inc. Malden-On-Hudson, NY Phone 800-537-8752 Fax 914-246-3416		■		■						■	■		■						$35	$125	Y	436
Serrubec, Inc. Montreal, Quebec, Canada Phone 800-361-0243 Fax 514-631-0494	■	■	■	■	■						■	■	■	■	■	■			$25		N	437
M. Shepse Co., Div. American Bionics Pittsburgh, PA Phone 800-666-6007 Fax 412-381-5122		■	■	■		■		■					■	■	■	■	■		$10	$250	Y	438
Silver Sales, Inc. Plano, TX Phone 800-258-5625 Fax 214-618-1897		■	■	■	■					■	■		■	■	■	■					Y	439
So-Cal Lock & Supply National City, CA Phone 800-521-3551 Fax 619-474-2440	■			■						■	■		■	■			■			Varies	Y	440
Southern Lock & Supply Pinellas Park, FL Phone 800-282-2837 Fax 800-447-2299 3 Branch Locations. Call for the location nearest you.	■	■	■	■	■					■	■		■	■	■	■	■	G H	$25	$500	Y	441
Stone & Berg Wholesale Locksmith Supply Co. Worcester, MA Phone 800-225-7405 Fax 800-535-5625	■	■	■	■	■					■	■		■	■	■	■	■	2 6		$350	Y	442
M. Taylor, Inc. Philadelphia, PA Phone 800-233-3355 Fax 215-288-2511	■	■	■	■	■	■					■		■	■	■	■	■	I J	$15	$400	Y	443
Top Notch Distributors, Inc. Honesdale, PA Phone 800-233-4210 Fax 800-854-4146 1 Additional Branch. Call for location.		■	■	■	■					■	■	■	■	■	■	■	■	I 2 J			Y	444
Tram International, Inc. Delray Beach, FL Phone 800-843-2440 Fax 800-448-8280				■						■	■		■	■	■	■		I		$75	Y	445

A–*Full Line Catalog* **B**–*Monthly Fliers* **C**–*Monthly Specials* **D**–*MasterKeying Charts* **E**–*Volume Discounts* **F**–*Baxter System Codes* **G**–*Special Locksmith Programs* **H**–*Annual Trade Show* **I**–*Computer Stock Checking* **J**–*Customer Referral Program* **1**–*Sargent & Greenleaf* **2**–*Catalog & Brochure Available* **3**–*No Wait Counter Pick-up* **4**–*Free Giant Catalog* **5**–*Late Hours* **6**–*Bi-Monthly Newsletter*

DISTRIBUTOR GUIDE

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Turn 10 Wholesale Marietta, OH Phone 800-848-9790 Fax 800-391-4553					■						■			■	■	■	■	■	A B C			N	446
Tweed's Locksmith Supply Portsmouth, VA Phone 800-544-4482 Fax 804-399-1636	■	■	■	■	■			■						■	■		■	■		$10	$400	Y	447
U.S. Lock Corp. Brentwood, NY Phone 800-925-5000 Fax 800-338-5625 3 Additional Branches. Call for the location nearest you.	■	■	■	■	■						■	■		■	■	■		■		$50	$500	Y	448
Wilco Supply Oakland, CA Phone 800-745-5450 Fax 510-653-5397	■	■	■	■	■						■			■	■	■	■	■	D E	$50	$250	Y	449
Zipf Lock Co. Columbus, OH Phone 800-848-1577 Fax 800-228-6320	■	■	■	■	■						■			■	■			■	F G	$25	$750 UPS Zones 2-4	N	450

A–*Free Freight* **B**–*Product Selection* **C**–*Price & Stock Guides* **D**–*Catalog On Disk* **E**–*Key Blank Cross Reference Program*
F–*Computer Stock Checking* **G**–*Keying Services Available*

BATTEN DOWN THE HATCHES

Windows And Patio Doors

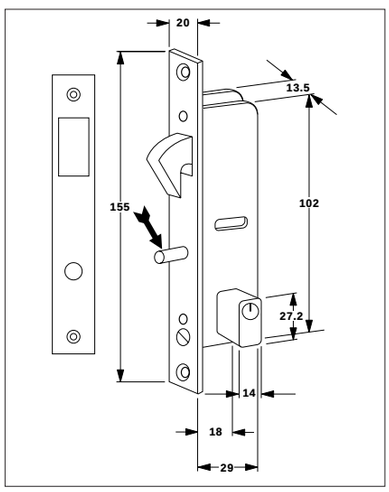
More money, better security. Two issues that go hand-in-hand with most locksmith's goals can be achieved by offering patio door and window locks.

by Jake Jakubuwski

Two of the most vulnerable areas of homes and businesses are the windows and patios, or sliding glass, doors. Many OEM locks are often less than adequate from a security standpoint, leaving residents unsecure and landlords and the hospitality market liable.

One incident that I recall involved a woman in Chicago that was raped in her apartment. The courts agreed with her claim and found the building's owner negligent for failing to install a door viewer.

I'm not passing judgment on the merits of that case or others similar to it. What I am stressing is: There's a potential bonanza out there for locksmiths that are willing to recognize a need and fill it!



1. The Pado 430 hook bolt for sliding doors. Note the anti-lift pin indicated by the arrow.

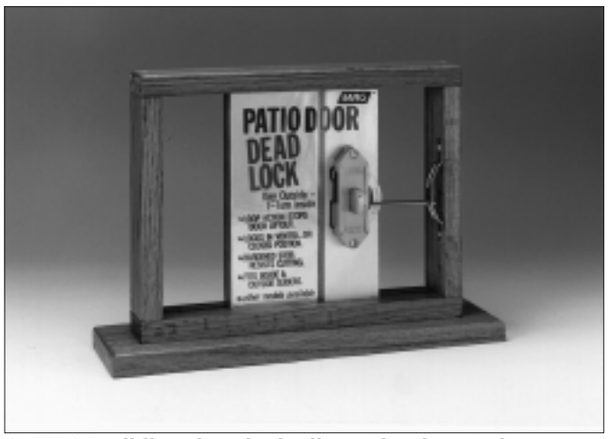
So, in an effort to help you fill the next need you see for securing a window or a patio door, the following are highlights of some products available to you and the companies that make them.

Pado Security Products covers a wide variety of mortise locks for steel and wooden doors, including a high security cylinder model.

The PADO 430 hook bolt is well engineered and designed to outlast the patio door into which it is installed. *(See illustration 1.)*

For increased security, a hook bolt arrangement in the lock includes a pin. This pin extends into the strike preventing the door from being lifted out of the track.

2. MAG window locks.



3. MAG's sliding door lock allows the door to be opened for ventilation.

The lock comes complete with mounting screws, escutcheons a double cylinder profile cylinder, strike plate and two keys and is available to the locksmith for a little under $10.

For more information contact PADO at 800-523-9877.

MAG Engineering has always been a leader in patio door and window security products.

For double hung, wooden sash windows, MAG has their Wood Window Locks that are easy to install, look good, prevent the window from being raised and retail for about $1.79. *(See photograph 2.)*

4. MAG also has a security bar for sliding patio doors. This unit offers the ventilation option as well.

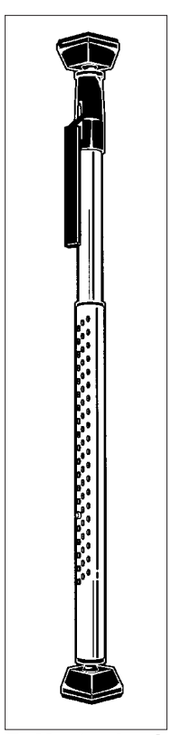
5. For those typically hard to secure sliding windows, MAG offers the Sliding Window Lock.

MAG's Patio Door Dead Lock comes in a single (8600 series) or double cylinder model and (8500 series) is simple to install and locks the door in a closed position or in an open, ventilation position. *(See photograph 3.)* The unit retails for $9.99 in the single cylinder version and $29.99 in the double cylinder model.

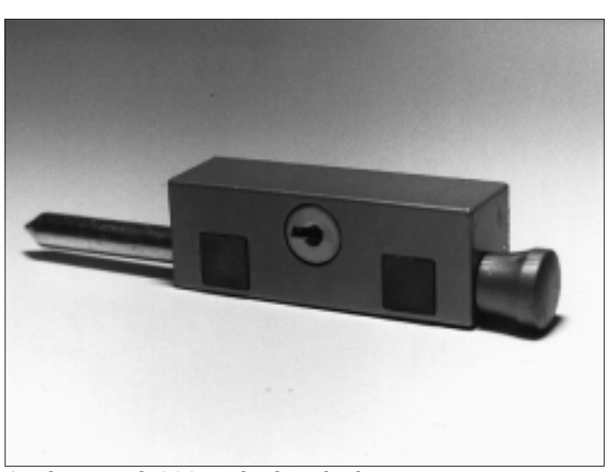
MAG's Sliding Door Bar is a quick, easy, economical and effective solution to patio door security. *(See photograph 4.)* The Sliding Door Bar not only keeps the door shut, it can be used in a ventilation mode also. The Sliding Door Bar retails for $16.99.

For sliding windows, MAG manufactures the Sliding Window Lock (#8830) which retails for about $6.99. *(See photograph 5.)* It is fast and simple to install, and like other window locks, you don't usually sell just one.

6. Built to meet pool side safety requirements, the Latchmatic Lock (above) with the Slidematic Closer (not pictured) are a perfect match for patio door security and is offered by Slideline, Inc.



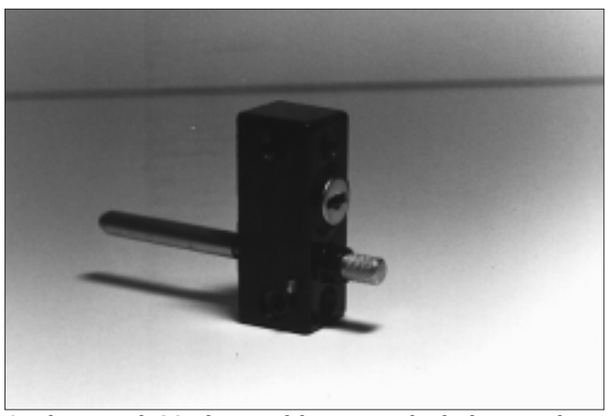
7. Master Lock Company's new entry in the patio door security market - The Security Bar.



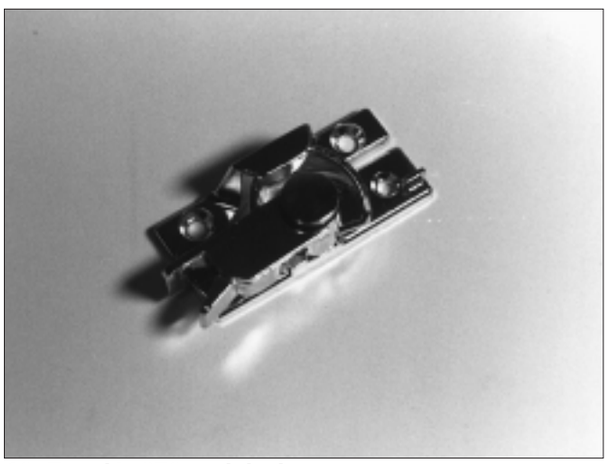
8. The Emtek 206 patio door lock.

Continued on page 56

Continued from page 54



9. The Emtek 204 is a multi-purpose lock that can be used for sliding windows, patio doors and similar applications.



10. Emtek's 270 sash lock.

Contact MAG Engineering at 800-624-9941.

Slideline, Inc. has developed two products for patio door security. One is the Latchmatic Lock, which retails for $31, and the Slidematic Closer, which retails for $189 (standard duty) and $225 (heavy duty). *(See photograph 6.)*

Both of these products not only increase the security of a sliding patio door, but in many localities enable users to comply with state and local codes for doors leading out to swimming pools.

The Slidematic Closer coupled with the Latchmatic Lock, not only closes the door automatically, but it latches it securely as well. The Latchmatic Lock has both a deadlocking feature and a hold open mode depending on the needs of your customer.

Contact David Prochaska of Slideline Products for more information, 800-545-0544.

Master Lock Company made it's entry into the sliding door security market with the introduction of it's model 251D Patio Security Bar. *(See illustration 7.)* It costs about $18 to the locksmith.

The Patio Security Bar is made of aircraft grade aluminum for strength, security and light weight. The bar has padded ends to prevent marring the door or frame and a patented quick-locking feature that ensures the bar will stay in place.

The Patio Security Bar fits most patio doors up to 43-7/8" wide so that one size bar covers most applications. The pivoting ball in the foot of the bar adjusts to small differences in doors and assures rapid and proper installation of the bar, without tools. The bar both prevents the door from being lifted from the track and serves as a visual deterrent. Contact your Master Lock Distributor, or Master Lock at 414-444-2800.

Emtek Home Security Products (formerly Watchguard) not only makes patio door bolts and several styles of window locks, they also manufacture door security products, door viewers, and mortise locks for patio doors.

Their high security door bolt (Model 206) not only secures a patio door in a deadlocked position but can be used to secure the door in an open, ventilation position. *(See photograph 8.)* Easy to install, this unit retails for about $20.

Emtek's model 204 is a versatile lock that can be used as a patio door lock, a sliding window lock, or a double hung wooden sash window lock. *(See photograph 9.)* It is key locking and retails for under $16.

Photograph 10 is Emtek's Sash Lock (Model 270), which retails for under $4. Although this sash lock is not key locking (the model 273, at $5.02, is) the release has to be tripped before the lock can be turned. This prevents someone from running a knife blade between the sashes and unlocking the window. *(See photograph 10.)*

Call 800-356-2741 for an Emtek distributor near you.

O. K. friends and neighbors, there you have it. I didn't cover all the manufacturers of window and patio door security products, but I have given you enough information to "get ya' cracking," so to speak.

So check out the window and patio door security market. You might be surprised at just how much money you can make with these products. Y'all, heah?

BUSINESS BRIEFS

News from the Locksmithing Industry

INDUSTRY INTERVIEW...

With roots deep in the world of safes, this month *The National Locksmith* speaks with Judd H. Penske, National Sales Manager for Meilink Safe Co., a Fire King International Co.

Judd H. Penske
National Sales Manager
Meilink Safe Co.

Can you describe a little of the history on how you came into the safe field, Judd?

Actually, I have been associated with safe business all of my life. My father started with Meilink as a District Sales Manager in 1938, just a few years before I was born. Even during my years in school and my retailing career one eye was on Meilink. I joined Meilink in 1972 as an independent representative in Ohio and Michigan. At the time I joined Meilink as a commissioned sales representative I had little experience in sales, much less safes. During this period, we had 16 weeks delivery time on insulated file and 4 weeks on safes. Drive by commission, it didn't take me long to figure out that if I wanted income I had to sell product that returned the fastest commissions, thus safes made sense. But more importantly when I called on the locksmiths, I found them enjoyable, honest and willing to explain their views, not only on our product, but the competition. Thus, I've developed a respect and friendship with the industry people which I enjoy today.

I joined Fire King in December of 1991, after the acquisition of Meilink by Fire King. At the time, Fire King officials were looking for someone to transition and familiarize them with the Meilink product line as well as the locksmith market, a market Fire King had only begun to enter prior to my arrival. As The Meilink Safe Company has grown, it has required more and more of my attention. For the past year, my total responsibilities have been the direction of the Safe Division as National Sales Manager. Additionally, I am responsible for continued improvement in quality, while allowing the new manufacturing facility to run efficiently.

What has been the most enjoyable aspect of working in this industry?

The most interesting aspect of this business has, of course, been the people. The large diversity of people that I encounter in the day-to-day business at Meilink and the extensive travel makes the job welcoming each morning. I have found the average locksmith to be very honest and forthright in his approach to business. This of course, has its drawbacks, not to say people should be dishonest but be more deliberate and research their business a little closer before making a decision.

What has been the most challenging aspect of working in the industry?

As I have said many times in my classes and seminars, the locksmith industry has to change to more of a "service and merchandising" industry rather than a "repair and replace." Someday, someone is going to figure out how to do what the locksmith is doing and put it in 10,000 sq. ft with new trucks and lower paid employees and the average locksmith today may find himself on the short end of the business. This has happened in the food, and office products business as well as appliances, building products, and other industries.

Trying to get locksmiths to challenge themselves and begin to sell and merchandise themselves and their business has been the most challenging part of my 20 some odd years in the business. Many of the new breed, those with some college education, have been making the transition very well and are doing very well in the industry. If a locksmith chooses to niche market, he can do very well. Although in doing so, he tends to limit himself and the amount of income to be derived.

What changes have you seen take place in the industry? Why?

The change that seems to have effected the industry the most is the influence of imported products. Safes from Thailand, Japan, China, South America, South Africa and other locations have proliferated in our industry. While I don't have any particular problems with the imports themselves many of them claim both fire and burglary resistance without an identifiable label that the consumer can understand. We receive calls weekly concerning fire or burglary ratings on the imported safes. The consumers asking what the label means. My own personal

...INDUSTRY INTERVIEW (continued)

experience has been that many of the dealers selling the imported products are not familiar enough with the product they are selling.

What direction do you think the industry is taking? Why?

As most people will agree, the safe industry is slow to change. With the exception of the composite safe, little has changed over the past 20 years or so. I believe in the near future manufacturers will respond more to consumer desires. One of those desires is safes that have both fire and burglary protection. In recent years, Meilink has made a conscious effort to introduce new items that feature both the U.L. rating for fire and burglary. Meilink's new 40,000 square foot facility is the first manufacturing facility built solely for the production of insulated and composite safes in the past several decades. This will allow Meilink to become more efficient and become one of the leaders in the industry.

Secondly, the move to electronic locks is moving in the right direction, although I believe there are still too many problems with the reliability of the lock on insulated safes. It seems the inherent moisture and other components of the safes cause a higher failure rate than on non-insulated safes. I think the electronic lock manufacturers are addressing that problem.

How do you think these changes have affected the locksmith?

Relating to the fire and burglary rating and what the customer perceives, many of the locksmith take the road of least resistance and sell only the price on the unit fearing that the customer will not buy. I think the locksmith, as a security expert in the eyes of the consumer, has an obligation to explain to the customer exactly what they are looking at and the options that are in the marketplace. Then, if the customer still chooses a non-rate, inexpensive unit, fine, at least the locksmith has properly informed the customer.

What changes do you see necessary if the locksmith is to be successful in the future?

Upgrading their image. That is the single most important factor locksmiths can do to improve themselves. The upgrading must come not only in their personal approach to the customer, but also how their business is perceived by the customer. We receive calls from consumers regarding their safes and many of them tell us they are reluctant to call a locksmith because they are not sure of their reputation and presentation. Locksmiths are going into people's homes and businesses and should be as professional as the people they call on. I have noticed in the past half decade that we are seeking more locksmiths in uniforms and even ties in the field. More are taking a look at what their shop and trucks look like and upgrading them to meet the customer's expectations.

What do you feel the future holds for the locksmiths and their role in security?

"To the diligent and hardworking go the spoils." Also, foresight and planning help a lot. Those locksmiths who identify their market, their customer and their customers' needs will grow into the total security center for the customer. The security business is a service business and the customer wants service. The sooner the locksmith adapts his operation to a total customer oriented business, the more successful the locksmith will be.

How do you think the locksmith can best serve his customer?

I touched on this previously. I believe the most important factor for a locksmith is to keep focused on the customer and the customer's desires concerning hours the locksmith is open, the type of products carried and services offered. The locksmith should look at his competitors, determine why they are successful and shoot for that type operation.

Any additional comments?

In closing, I would encourage the locksmith to abandon the status quo, strive harder, look for ways to better serve their customer. I would encourage locksmith to include "value added" services to their customers, such as free service call after purchasing a safe. These types of value added items will separate them from the discount stores and the price only dealer.

Also, expect more from wholesalers and vendors, let them know how you feel. The only way we as a manufacturer can improve is to receive feedback from the locksmith.

Indiana Cash Drawer Company, The POSource®, has promoted the following employees: **Robert Benavides** to the position on **Vice President of Sales and Marketing**, **Randy Boone** to the position of **Vice President of Finance and Administration**, and **Phil Stephens** to the position of **Vice President of Operations**.

Ralph P. Nussbaum, CEO and President of **National Safe & Lock Company, Inc.** announces the appointment of **Jonathan C. Jablons** as **Executive Vice President** of the corporation's recently expanded Lock Division. Mr Jablons will be responsible for publicity, marketing, promotions and sales of all national accounts. **Raymond L. Jablons** assumes the corporate position of **Senior Vice President of Finance and Administration**.

Ace Lock & Security Supply, Union, NJ has announced a new toll free number to service its customer base: 1-800-ACE LOCK

Stan Gabay, Director of Sales & Marketing advises that this easy-to-remember phone number may be used to order door hardware or to contact the firm's AXCESS division, when ordering card access or electronic door products.

JLM Wholesale is now offering scheduled seminars for up to eight people per seminar. Topics covered will be door and frame design, Basic Door Hardware, Access Control applications, Security hardware specification and a little information on installation techniques. Classes will be taught at JLM's facility approximately once per month, to reserve your spot call Kenn Andridge at 800-522-2940.

LIGHTER SIDE

Smart Stuff

by
Sara Probasco

"Well, it looks like Dr. Ted needs to prescribe some of his smart pills again," Don said. "Did you read this article Dennis Copeland sent us from Brownsville?"

"The one about the Harlingen woman found murdered in her car, whom they suspect embezzled over $100,000 by forging payroll checks against her employer's account?"

"That's the one."

"No, I haven't read it yet," I said.

Don did a double-take. "Then how did you know all about it?"

"Oh, I just glanced at the headline and skimmed over the first few paragraphs, but I haven't had time to really read it, yet. Why? What else did it say? Were they able to recover any of the money?" I asked.

"At her house, they found $4,600 along with a locked safe," Don replied.

"What was in the safe?"

"Nobody knows. Apparently it was still locked, when the paper went to press."

"What kind of safe was it? Something difficult to get open?"

"This just says Police confiscated everything on Friday, but were waiting until Monday to get the safe opened."

"Why?" I asked.

"That's where the smarts come in," Don replied, grinning "They didn't want to pay a locksmith overtime to open it on a weekend."

"You're kidding."

"Nope." Don shook his head. "That's what it says, right here in the article. See?" He pointed to the words in the news clipping. By this time, he was chuckling out loud.

"Reminds me of that time a man was locked inside his company's vault, a couple of years ago. Remember?" he asked, wiping tears from his eyes, "the office manager was calling around to all the locksmiths in town, making price comparisons for getting the vault open, while the poor fellow was banging on the door, begging for somebody to get him out. When the manager learned everybody's rates were double on weekends, he decided to leave the man in there until Monday morning."

"Oh, yes," I said. "And if I remember correctly, the business owner had several cases of prized imported beer and rare wines stored in the vault."

"Right." Don began to chortle. "The guy who was locked inside didn't care whether he was rescued or not by the time a locksmith got the door open on Monday morning."

He got out his handkerchief to wipe his eyes again.

"But even that is not the best story about the smarts I've heard lately," Don said.

"I don't guess you've read about yesterday's kidnapping, yet?" Don reached for the local morning newspaper to show me the headlines. "Three women stopped at that little drive-in cafe on the Del Rio highway, just west of town," he said. "A man pulled up behind them in an 18-wheeler, walked over to their car, yanked the door open and dragged the driver out. Before her startled companions could react, the man hauled the woman to his rig and drove off with her."

"Why, Don! How awful! Have they found her?"

"Fortunately, the woman's companions recognized the man. They called the police, gave them a full report, and within an hour the guy was located at a rental house on Oak Street."

"Was the woman all right?" I asked.

"Apparently, the report of kidnapping had been exaggerated. When the police broke in, they found the couple in a somewhat compromising entanglement."

"So, what did they do to the guy?"

"Nothing."

"Nothing?"

"The woman refused to press charges."

"Why should she have to? Isn't a kidnapping charge made by the state?" I asked.

"Maybe, but the woman said her friends were mistaken, that there was no kidnapping. She claimed she had gone with him willingly."

I shook my head in disbelief. "Boy, I'll bet her friends who reported the incident felt foolish."

"No doubt," Don agreed. "But that's not all. Better call Dr. Ted and be sure he has plenty of those smart pills. Looks like we're going to need to hand out a passel of them, this year. Read this," he said, pointing to a paragraph toward the end of the newspaper article.

According to the report, when the man's truck had been spotted outside his house by a patrolman, the patrolman called in for a back-up. Dispatch then relayed the information to headquarters, where the chief of police was standing by.

"How many officers are at the scene?" asked the chief.

"Only one," the dispatcher replied, "but he has the house surrounded.

TECHNITIPS

Helpful hints from fellow locksmiths

Send in your tips and win.

by Jake Jakubuwski

HOW TO ENTER
Simply send in your tip about how to do any aspect of locksmithing. Certainly, you have a favorite way of doing things that you'd like to share with other locksmiths. Write your tip down and send it to: *Jake Jakubuwski, Technitips Editor, The National Locksmith, 1533 Burgundy Parkway, Streamwood, IL 60107.* Remember, tips submitted to other industry publications will not be eligible. So get busy and send in your tips today. You may win cash or merchandise. At the end of the year, we choose winners for many major prizes. Wouldn't you like to be a prizewinner in 1995? Enter today! It's easier than you think.

BEST TIP OF THE MONTH
If your tip is chosen as the best tip of the month, you'll win $50 in cash! Plus, you may win one of the large year end prizes!

EVERY TIP PUBLISHED WINS
Yes, every tip published wins a prize. If your tip is printed, you'll win $25 in Locksmith Bucks. You can use these bucks to purchase any books or merchandise from *The National Locksmith*. Plus, every tip published will win a copy of the Technitip Handbook.

These Prizes Awarded Each Month!

- All-Lock Foreign Auto Service Lists - Worth Over $225.00!
- HPC Pistolpick
- Silca Rubberhead Keyblanks (100 Blanks)
- ESP PR-13 Professional Lock Pick Set
- Sieveking Products EZ-Pull GM Wheel Puller
- Technitips Handbook

Submit your tip and win!

Do you believe it? It's 1995 already!

Wow! Time sure gets away from you when your having fun, doesn't it?

Speaking of fun. Take a look at that year-end winners list! I'll bet you a nickel to a bent nail, they're having fun with their brand-new code books, key machines, cash and other great prizes they won in our year-end drawing!

And, you know what? They were winners because they sent in a tip that I was able to use in this column. That qualified them for the fantastic year-end prizes they received. Not only that. They also received a monthly prize for the month in which their tip was printed!

Why don't you get on the Winners Wagon and send me your tip right now? Who knows, maybe you could be this year's winner of a Silca Bravo USA semi automatic duplicator, or The Punch Machine by HPC, or $100 bucks in cash or a set of The National Locksmith code books!

At the very least, if I use your tip in the Technitips column, I'll send you a Technitip Handbook and twenty-five Locksmith Bucks. C'mon! Whadaryawatinfor, Christmas?

Finally, congratulations to all the 1994 winners, your tips made my job a lot easier and a lot more fun. And, from all of us a The National, we hope you have a happy and prosperous New Year! Y'all, heah?

Tip Of The Month
Hyundai Safe Opening

The Hyundai electronic safe Model #KSG-4500J is made in Korea and is probably very similar to many other electronic safes imported from the Orient. This safe measures 17"H x 13"W x 142"D. The door thickness is 2-3/8" and, there is one locking bolt at 8-1/2" down from the top and 1-3/16" in on the bolt side. Handle rotation is clockwise.

To open this safe, all you need is a good, strong rubber band, that you would wrap around the top of the handle and the bottom hinge. Now provided that the safe is not bolted down, lift the entire safe about 12" from the floor and drop it on it's bottom. It should pop right open.

The electric solenoid is very weak and the shock of the safe hitting the floor will usually cause it to release.

If the safe is bolted down, then drilling a hole will be necessary. Drilling from the rear of the safe is the best approach. Drill a hole at 7" up from the bottom and 4" over

from the hinge side. This will enable you to see a chrome swivel cover plate. Manipulate the plate aside and depress the silver-colored button that you see with another probe. Depressing that button will display the combination on the front panel.

If you can't get to the back of the safe, then top drill for the solenoid. Measure in 1-1/4" from the front and 5-1/4" over from the opening edge. Use a probe to push down on the solenoid and turn the handle.

You could also drill the safe from the hinge side at 7" up, and 2-5/8" back, use a hooked probe to push the swivel cover out of your way, and another probe to depress the silver button. However, that route could be a little tricky.

The digits on the touch pad of the safe are grouped as follows:

C	D	E	F
8	9	A	B
	S		
4	5	6	7
0	1	2	3

To open the safe, press the "S" button and then the correct combination.

To change the combination: Press "S" and the display will read "READY". Next, enter the new combination. Then, press the black button on the rear of the door, under the swivel plate.

Ken Schwartz
Florida

All-Lock Foreign Auto Service Lists Winner

GM Lock Decoder

I've only been a locksmith for a short period of time. When I tried to decode my first GM lock cylinder, I disassembled it and read the depth of each wafer against the wafers in my automotive pinning kit. The next day, I ordered a GM lock decoder from my supplier.

Maybe it was just the way I used the decoder, but one time I would get a "good" reading and the next time I would not. After struggling with the

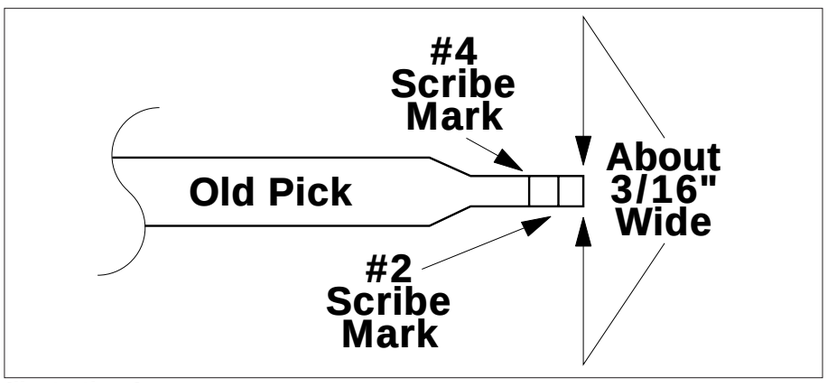


Illustration 1

problem for a while, I came up with this idea to make my own decoder.

I took an old pick, and filed it as shown in illustration one. The decoder tip is just a little over 1/2" long. Then, I used a GM cylinder that I had loaded with a #2 and a #4 wafer, inserted springs and put on a retainer.

Next, I applied pressure to the side bar and raked the two wafers until the side bar depressed. I inserted the tip of my decoder tip of my decoder into the slot with the #2 wafer in it and when it bottomed out I used a dental pick to inscribe a line as shown in the illustration.

I repeated the same procedure over the slot that had the #4 wafer in it and scratched another line with my dental pick.

To decode a cylinder with an unknown wafer combination I pick the cylinder, use a small clamp to hold the sidebar in and insert my decoder in the first wafer slot. If the reader does not drop to the first mark I made, the wafer in that position is a #1. If it drops even with the first line, it is a #2.

If the reader drops between the first and second scribed marks, the wafer is a #3, if it drops with the second mark even with the top of the slot, it is a #4 and, if the reader drops past the second mark, the wafer would be a #5!

Now, I read GM cylinders quickly and accurately - every time I really hope this will help another locksmith that might have had the same problem I did.

James Eubanks
Vermont

HPC Pistol Pick Winner
Tamper Proof Screw Removal

I had been hearing from other locksmiths in my area that they were running into mortise lock rekeys on narrow stile aluminum doors where they either could not get the face plate off the door, or were having a difficult time doing so, because someone had used tamper resistant screws to attach the face plate to the locks

Well, last week, I ran into the same problem. Apparently, the locksmith that had serviced the lock before me had used two 8-32 socket or hex-pin, tamper resistant screws when they had replaced the face plate.

Photograph 2

I do not have the special drivers to remove this type of fastener and knew that trying to drill them out would be messy and time consuming. Also, I felt the customer might not appreciate my beating on the door with a hammer and small chisel, trying to remove the screws.

My solution? I removed a small screwdriver from my tool box and used my Dremel tool to modify it as shown in photograph two. The indentation in the center of the tool's blade fits over the pin. The outer legs fit into the corners of the screw.

Then, by inserting the tool into the tamper resistant screw, applying turning pressure and tapping on the handle of the tool with a small hammer (to keep the tool seated and vibrate the tight screw loose), I backed the screws out of the face plate and completed the rekey my customer had called me out for.

Pete Gamble
N. Carolina

Editor's Note:

Tamper resistant fasteners are turning up in more applications every day. I would recommend that any locksmith that encounters these fasteners on a regular basis purchase a set of drivers to remove and install them with.

Tanner Bolt & Nut, 800-456-2658, sells a security bit kit for about $48.

Also, Steve Young, of Tech Train Productions, 800-3560136, has a set of security drivers available.

And, to the best of my knowledge the Tamper Proof Screw Co. of Hicksville, N.Y., 516-931-1661 also offers tools for installing or removing tamper resistant fasteners.

Silca Rubber Headed Keyblanks Winner
Muffin Pan Organizer

Here's a helpful idea to keep you organized when doing rekey or master key work.

Get an 18 cup muffin pan (9"x12") and attach a drawer pull type handle in the center of the pan. You can use this pan to conveniently carry lock cylinders, knob sets or plugs, etc.

To use the pan, make out three labels with the door number and other information that you need on them. One label is for the door, one label is for the knob or cylinder that you remove and the third is for the muffin pan.

This way, you're sure to always get the correct hardware back on the correct door. As you finish each door, you can remove the labels from the locks, the door and the muffin pan,

On a final walk through, checking keys, you can remove any labels you may have missed.

Darlene and John Thompson
California

ESP PR13 Pick Set Winner
VATS Saver

When interrogating a GM vehicle equipped with the new 10-Cut VATS/PASSKEY system, only cut one side of the test key for your interrogation.

Then, on the next VATS equipped vehicle (with a 10-cut ignition) you do, cut the other side for interrogation of that vehicle.

These keys (B&S part #597263) cost about $5.00 each. This idea can cut your interrogation key costs in half!

Scott White
Georgia

E-Z Pull GM Wheel Puller Winner
GM Wheel Puller Alternative

Before becoming a locksmith, I worked as an auto mechanic. I got tired of missing, stripped and bent bolts in the steering wheel puller, and decided I had to do something to rectify the problem.

I used a nut and bolt of the proper size (for the car I would be working on) and threaded the nut about five threads onto the bolt. Then I brazed the bolt in place.

Next, I removed the nut from the steering column, and attached my nut/bolt assembly. I would only "snug" the nut by hand, turning it until my bolt bottomed out against the steering wheel shaft. Then, using a small hammer, I would gently tap the head of my bolt. The steering wheel would just pop loose.

Now, as a locksmith, I have several sizes of my nut/bolt combinations in my tool box ready for any steering wheel I have to pull. They work great and last a long time.

Doug Coburn
California

Editor's Note:

I made up one of these tools and gave it a try on an old Chevy in the local junk yard. It did work, although it took several not so gentle "taps" to break the wheel loose. However, I only tried this on one vehicle and the wheel could have been frozen to the shaft.

It should be noted, however, that GM steering shafts (and possibly shafts by other manufacturers) are made of two telescoping shafts held together by two nylon pins. During a frontal collision, if the steering wheel suffers an impact of 200 pounds or morel, the entire steering

shaft and mast jacket will collapse. This is to prevent the driver from being impaled during a collision.

Many locksmiths (and mechanics) have made the error of either striking the steering shaft or jerking up sharply to remove the steering wheel. In either case, if more than 200 pounds is employed, the nylon pins will shear and the column will collapse. This, of course, can only be repaired by a qualified mechanic.

My recommendation is that this tool be used only where a standard puller does not work, and even then, with great care!

Technitip Handbook Winners

Vice Grip Third Hand

When I have to rekey a Weiser lock, I pull the tail piece out and use a pair of Vise-Grip's for my third hand to hold the tailpiece extended.

I find that to be fast, simple and inexpensive.

Juanita Ramsey
Texas

New VATS Machine

If you do not have the new VATS 10-Cut key decoder, you can use your old decoder to decode the new keys for duplication.

Insert one of the plastic interrogation keys in your current decoder. Place the customer's 10-Cut key between the two wires on the plastic key and read the resistance on your old decoder.

Remember, this is only for key duplication and not interrogating the new system.

R. K. Baiko
Wisconsin

Titan Tip

This tip is about creating the first cut of the Titan key. I have a Code 2 code cutting machine. After reading the article in the April 1994 issue of *The National Locksmith*, I decided to experiment with what I had. I have a Belsaw 200 duplicator which gave me the idea.

After comparing the diameter of the Belsaw duplicating cutter, to the Framon code cutter, I found they were very close.

The Belsaw duplicating cutter is about .002" to .003" less than the Framon cutter. By making allowances for this, I found it to be a perfect way to make the first cut on the Titan key blank without any modification or added expense.

For those of you that do not have a Belsaw duplicating cutter, you can order one from Foley Belsaw for $20.25, plus S&H. Order part #LDN 5720612.

The Belsaw cutter has a 3/8" bore and a 2.372" diameter and is .190" thick, and works very well on the Framon 2 code machine.

Howard Verret Erath
Louisianna

Titan Lock Bar

The National Locksmith's article in the April, 1994 issue regarding Titan was very thorough and informative. However, I found one problem. When rekeying these locks as stated in the article, the locking bar does get in the way of the plug's removal. When replacing the spring that holds the locking bar in place, I fumbled for about 30 minutes and nearly lost the spring at one point.

The simplest way I found to replace the spring is to insert the spring up-side-down and then turn it right side up.

Marv Meyer
Iowa

BITS & PIECES

Informative Tidbits for the Security Industry

by
Tom Seroogy

A portion of the November 1994 General Test article states that in 1994 the ownership of Corbin Russwin changed to Yale. We have been informed by Corbin Russwin that this is not true and is the result of erroneous information (rumor) that has been circulated through small portions of the industry.

According to Corbin Russwin, they are a wholly owned subsidiary of Williams Holdings. Although both Corbin Russwin and Yale are owned by Williams Holdings, they have been and will remain separate operating entities offering their own lines of door hardware.

The Pak-A-Punch by A-1 Security Manufacturing Corp. is offering five new automotive Quickchange Kits. The Pak-4C is use for vehicles using the DC1/X54 or the superceding DC3/X121 keyblank, including the Buick Opel, Chevrolet Luv Truck and Sprint, Dodge and Plymouth (Mitsubishi), Hyundai, Isuzu and Mitsubishi.

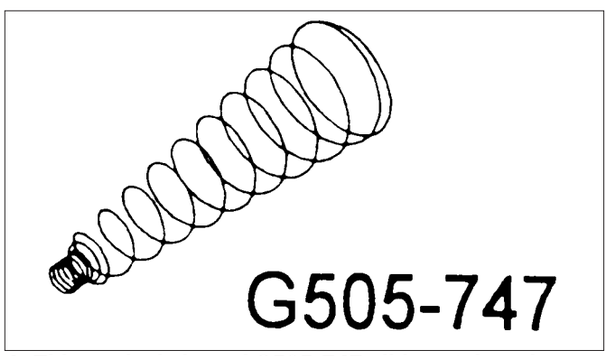
The Pak-T3 is used for Toyota vehicles using the R5001 to 6924, S1 to 699 and K1 to 4570 code series, as well as the Chevrolet Nova (Toyota) door key.

The Pak-T4 is also for Toyota and covers those using the F5951 to 9710 and P7001 to 8500 code series, as well as the ignition key for the Chevrolet Nova (Toyota).

The Pak-G5 covers Isuzu, GM and Geo using the A8001 to 9400 code series.

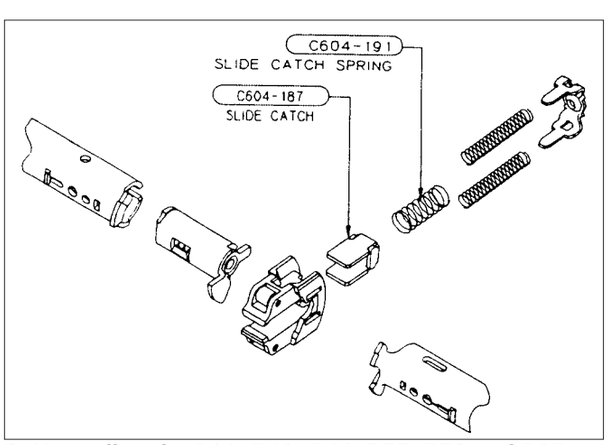
And the Pak-G6 includes the Geo, Isuzu and Suzuki using the 18100 to 19299 and D4001 to 6000 code series.

Finally, recently introduced is the Pak-NSK for late model Nissan and Subaru. This multi-purpose kit allows cutting of Nissan and Subaru vehicles using the F001 to 1000, W001 to 1000, M4000 to 5000, M5001 to 6000, M6001 to 7000, M7001 to 8000 and the X, Y 1 to 8000 codes.



1. This conical shaped G505-747 slide catch spring has been upgraded to a newer cylindrical shaped spring C604-191.

Vincent Glispie of Glispie Lock in Chicago, Illinois forwards this information. From USA Today, an article by Bruce Horovitz and Earle Eldridge state that customers are now more concerned with the security their vehicles offer. The article points out the expanded use of security



2. Upgrading the D30, D40, D44, D55, D73 and D85 require replacing the slide catch and slide catch spring. The D50 and D53 also require changing the slide and rollers.

3. Schlage's new S200 interconnected leverset.

systems on newer vehicles and vehicle advertising. Most noteworthy is that print ads for BMW's 7 series models state that no keyhole is present in the passenger door in order to "'reduce the chance of curb-side break-ins.'"

Vince also sent us a copy of a display ad featuring a free plastic spare key offered by the American Automobile Association. According to the ad, anyone who wishes can visit their local AAA office and have the spare key cut for them free of charge. After speaking with AAA, Vince states that the program won't be set to run for a few months yet.

Schlage replacement parts for the D series lockset. The following list of conversions have been made to increase the strength and reliability of the Slide Catch Spring of these units.

Old Part #	Replcmnt Part #	Descr.
C303-009	C303-006	Slide & Rollers, all functions
C503-315	C604-187	Slide Catch, restoring, D30, 40, 44, 55, 73, 85
C503-316	C604-188	Slide Catch, non-restoring, D53
C604-256	C604-190	Slide Catch, lever designs, D50
G505-747	C604-191	Slide Catch Spring, D30, 40, 44, 50, 53, 55, 73, 85.

A new cylindrical design of the Slide Catch Spring replaces the former conical shape. *(See illustration 1.)* Because of this design difference it is necessary to also replace the Slide Catch (all models) and, with the D50 and D53, the Slide & Rollers when making the upgrade. *(See illustration 2.)*

Schlage is introducing the new S200 series interconnected entry leverset. Used for light and medium use commercial applications, the S200 is perfect for apartment and hospitality (hotel, motel) applications.

Although listed as a Grade 2 lever, the unit actually exceeds ANSI A156.12-1992 Grade 2 requirements. Coming standard with a 6 pin (keyed 5 pin) cylinder, the S200 is also available with Schlage IC core and Primus cylinders. The unit includes a 1" interconnected deadbolt in 2-3/8", 2-3/4" or 5" backsets. *(See photograph 3.)*

CONCEALED CLOSERS

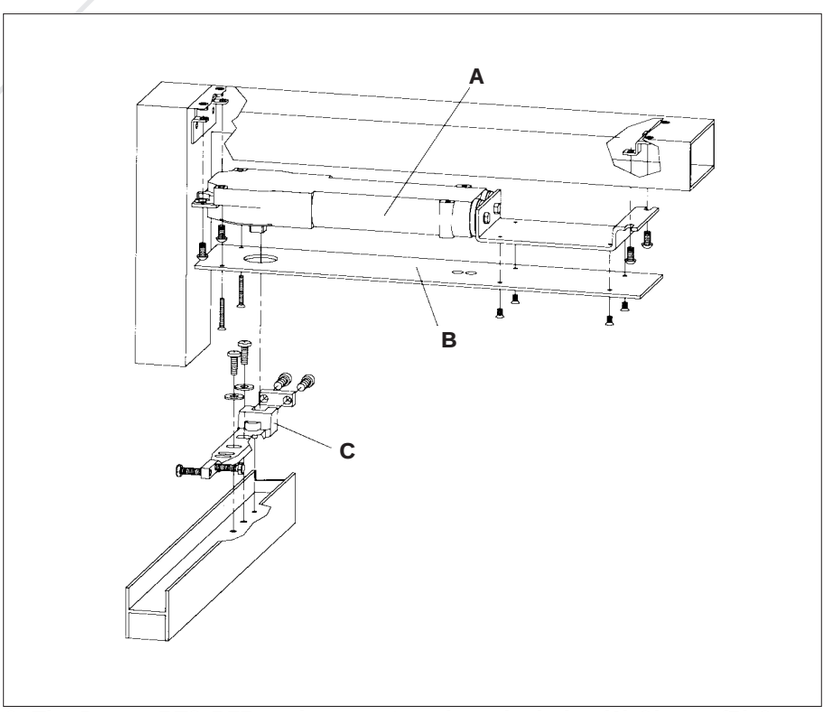
A market often passed by, take a short trip through the installation of a concealed door closer.

by Lynn Eisenhauer

Concealed closers are generally chosen when concerns about potential vandalism or the aesthetics of an exposed product make a surface closer undesirable. These closers may be concealed overhead in the frame, in the floor, or in the door itself.

This article will address only overhead concealed closers. Typically non-handed, the overhead concealed in-the-frame closers are often chosen over floor closers due to the extensive on-site preparation required to locate the cement case and prepare for the floor closer.

1. The DORMA RTS 88 overhead closer.



2. The Dorma RTS-RFR replacement package includes (A) Closer, (B) Cover Plate and (C) End Load Arm.

Overhead concealed closers are often used by frame manufacturers, particularly by manufacturers supplying the aluminum storefront industry, though hollow metal and wood configurations are also available. They permit the manufacturer to minimize the possibility of on-site installation problems by completely preparing the frame in the factory. In some cases, the closer installation itself is included in the factory preparation.

TWO CATEGORIES

Overhead concealed closers can be divided into two broad categories:

Narrow profile products well-suited for standard 1-3/4" x 4" aluminum tube headers or for hollow metal frames with a typical 2" frame face.

Adaptations of surface closers that have been modified for mounting into the header. Closers in this class often have exposed arms which can be the target of vandalism or can create aesthetic discord. These applications require a larger header or frame profile, which in turn usually require custom frames.

STANDARD APPLICATIONS

Applications for overhead concealed-in-the-frame closers can be divided into retrofit or replacement and new construction. Retrofit/replacement applications normally occur as the result of product failure or obsolescence. Often, only the closer itself needs to be replaced, rather than the door or frame.

The replacement of an existing product with a dissimilar product, or the retrofit of a new door and frame into an existing opening will generally have the same requirements as new construction.

Continued on page 89

Continued from page 84

Overhead concealed-in-the-frame closers suitable for retrofit applications are made by a number of manufacturers. Like DORMA's RTS 88 overhead concealed closer, they can be interchangeable. *(See photograph 1.)* When an existing closer is judged to be obsolete and in need of replacement with a contemporary unit, complete replacement packages are available. *(See illustration 2.)*

DORMA, for example, offers RFR replacement packages in slide track and end load options. Retrofit with these packages is as simple as removing the old closer and replacing with the new product. In some instances, the retrofit may require a conversion bracket or brackets and which are furnished with the RFR package. *(See illustration 3.)*

All center hung doors are not necessarily double acting. They can be made to be single acting by application of a blade stop or alternate types of stops.

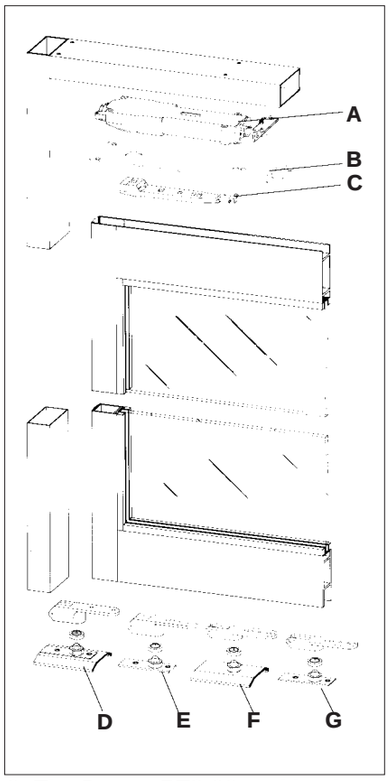
END LOAD OR SIDE LOAD

Whether the door is to be made end load or side load depends on how the door and frame are supplied by the manufacturer and how it is to be initially installed. In side load applications, the door is placed on the bottom pivot and pushed up into the opening to engage with the closer spindle while the door is in the closed position.

End load installation requires rotating the closer spindle 90 degrees, then placing the door on the bottom pivot portion and engaging the arm with the rotated spindle at 90 degrees.

Closer size must be correctly selected in accordance with the appropriate closer, specific door width and whether it is an interior or exterior opening. Refer to the individual manufacturer's size chart for proper selection. *(See illustration 4.)*

Locksmiths are often called upon to install overhead concealed closers. Let's follow a standard center hung, end load installation. The installation of the closer itself is a very simple, straightforward process. However, as the previous discussion indicates, the installation is done in concert with the actual hanging of the door, and locksmiths who tackle this project should plan accordingly. Two people



3. The Dorma RTS 88 end load closer, double or single acting, for aluminum door and frame with a 7/8" top rail. Included are the (A) Closer, (B) Cover Plate, (C) Top Arm, and pivot options (D) Tall Threshold Pivot, (E) Tall Floor Pivot, (F) Short Threshold Pivot, and (G) Short Floor Pivot.

will be needed to safely and efficiently complete the installation.

1. Begin with a thorough survey of the opening. Be certain that the opening is dimensionally correct, plumb, level and square.

2. Install the closer mounting brackets in the frame head and attach the closer to them. Make sure the closer is located in accordance with the manufacturer's installation instructions. Supporting the closer, tighten the fasteners securely.

3. Install the closer cover plate over the closer. This must be done before proceeding to hang the door, CAUTION: The misguided pursuit of total concealment has led to many problems with this kind of installation, as people attempt to abandon use of the removable cover plate in favor of concealment by a permanent casement. Never permanently conceal the closer in a manner which will prevent later access.

4. Install the top arm in the top channel of the door. Most manufacturers can furnish top arms in various depths to coincide with specific aluminum frame web depths (l", 7/8", 3/4", 5/8"). *(See illustration 5.)*

Check the top door prep if done by the manufacturer to make sure it is correctly prepared to accept the top closer arm. Check to make sure channel depth dimensions match manufacturers recommendations. If the top of door is not machined, prepare it according to the installation instructions.

5. To prep the bottom of the door, follow the same process used with the top of the door. If the prep was done

Size Selector Chart RTS 88 Series

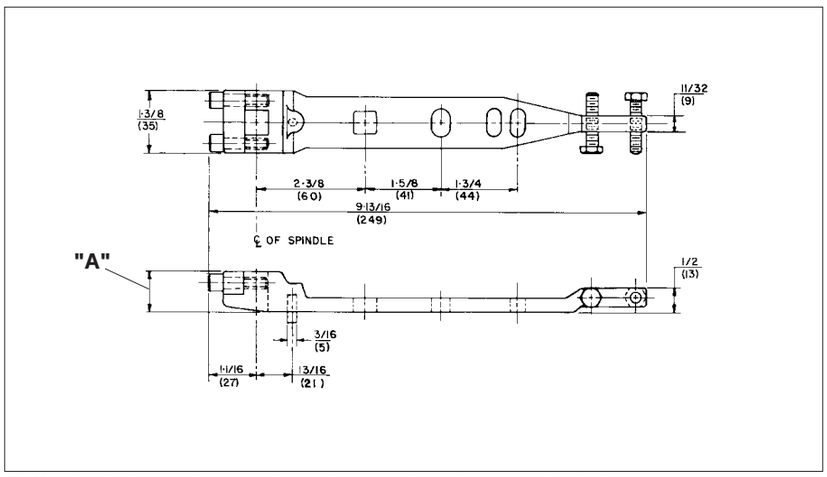
Maximum Door Width Interior	Maximum Door Width Exterior	Closer Size	Closing Force lbs. at 30"
to 3'0"	to 2'6"	2	6 lbs.
over 3'0" to 3'6"	over 2'6" to 3'0"	3	8.4 lbs.
over 3'6" to 4'0"	over 3'0" to 3'6"	4	11.6 lbs.

NOTE: The listed door widths and recommended sizes are for average conditions. In the case of tall or heavy doors or where doors are subject to wind or draft conditions, the larger closer size should be selected.

4. DORMA end load arm for aluminum or tempered glass doors. Arm depth (A) varies according to top door tail channel depth.

by the manufacturer, check for accuracy. If not, then proceed to machine per instructions. Note that for both top and bottom, shims or blocks may be required if channel depths do not match manufacturers recommendations.

The floor or threshold will need to be prepared to accept the bottom pivot on which the door will rotate. Different floor materials (wood, concrete, marble, etc.) will require different treatments.



5. Typical size selector chart for overhead concealed closers.

6. Close the "Sweep and Latch Valves" of the closer. Place the door in close proximity to and at 90 degrees to the opening. Use a large crescent wrench (the 4" wrench out of the kitchen drawer won't work) to rotate the closer spindle 90 degrees. CAUTION: A common field error with end load applications is the failure to rotate the closer spindle before installation. In this situation, attempts to push the door closed will result in the closer attempting to reopen it to 90 degrees.

7. Place the door on the bottom pivot and engage the top arm with the closer spindle. Use two people to minimize the risk of injury. The closed sweep and latch valves will prevent the closer spindle from rapidly returning to place.

Check to assure that the closer spindle is fully engaged with the arm. If it is not, the bottom pivot must be adjusted to raise the door until there is full engagement. Failure to do so will cause loosening of the clamping block and damage to the closer arm and spindle at a later date.

8. Secure the arm to the closer spindle with the clamping block. Begin threading the bolt, attaching one side of the clamping block, but do not secure and tighten it. Begin installation of the bolt on the second side of the clamping block. alternate the tightening process from side to side.

CAUTION: If you secure one side completely at the outset, the clamping block will not lay flat against the surface of the closer spindle. It will instead pinch one side and will not draw completely tight, only to loosen later and cause problems.

9. Check clearances completely around the door, adjusting the top or bottom arms as required. Adjust the jack screws in the top arm to accurately center the door in the opening.

10. Make sure all fasteners are securely tightened, then open the door and observe its function. Adjust the closing speed as required. If the closer is furnished with an optional stop or hold open function, check for proper operation of these features. Make any final adjustments necessary and install the cover cap on the heel of the door.

Products that comply with Barrier Free requirements are available in all concealed closer categories. It must be noted that the reduction in opening force required for barrier free compliance also reduces spring power available for closing the door. This reduced spring power may not be sufficient to close and latch the door in all cases. In those applications, alternative products like low energy operators should be considered. These units provide auxiliary power to open the door while maintaining full closing force.

Lynn Eisenhauer is manager, marketing communications, for DORMA Door Controls, Inc., Reamstown, Pa, and its recently acquired subsidiary, American Device Manufacturing Corp., Steeleville, Ill. Eisenhauer has been with DORMA for more than 14 years. His responsibilities include extensive technical training for sales representative and customers.

Doin' It

WITH BEST/FALCON

Learning the ins and outs of IC core service allows the locksmith another marketable skill.

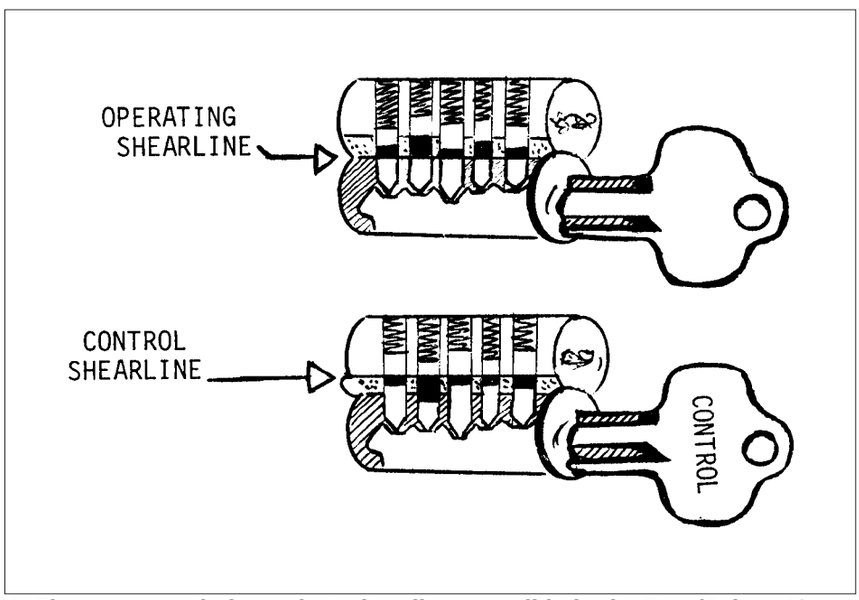
by Jake Jakubuwski

Interchangeable core (IC core) locking systems are available from most of the major lock manufacturers in America including Best, Falcon, Schlage, Medeco, Sargent, Corbin Russwin, Yale and others. All produce their own version of the removable, interchangeable core lock.

However, on a day-to-day basis, probably more locksmiths encounter Best/Falcon type IC core locks than any other type. Which is understandable, since there are, quite possibly, more Best/Falcon interchangeable core locks in use, then all the other brands combined.

And, I don't doubt that Best/Falcon type IC cores have caused more locksmiths to lose their religion, out of sheer frustration, then any other locking system currently being used. I know I have been driven to the point of cutting loose with a heartfelt, "Aw! Shucks!' occasionally while working on a Best/ Falcon cylinder!

In this three-part series, I'm going to try to take some of the mystery -and aggravation -out of working on, with and around Best/Falcon IC cores. I'm only going to deal with the more common A-2 system, and will leave the other series and the other manufacturers systems for later articles.



1. There are two independent shearlines possible in the Best/Falcon IC core system.

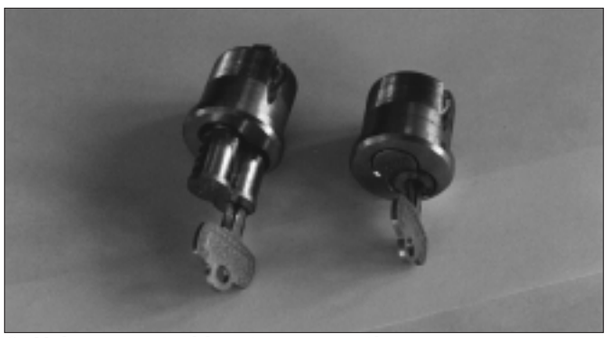
The first thing I would like to mention is that Best/Falcon IC cores are not high-security locking systems. These locks are pickable particularly to the control shear line, and they do not (Except Best's new cores with the armored collar. Which I'll discuss in a later article) have any anti-drill pins or face plates incorporated in their construction.

They are unique key control systems that offer the end-user good key control and the ability to change cylinders when necessary in just a matter of seconds. Consequently, they are ideal systems in areas where locks have to be rekeyed frequently due to rapid personnel turn-over. And, they are an excellent system where one person is responsible for the key security at numerous locations.

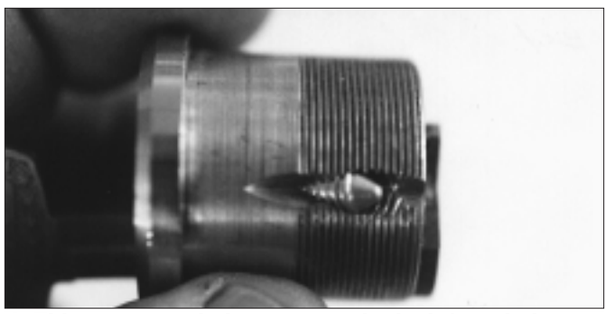
2. An IC core with control key, change key and master key, plus a replacement cylinder.

Next, I want to mention that Best/Falcon IC cores are not mysterious, awesome locking devices that require the skills of a CML with a Doctorate in Applied Physics to master. If you can masterkey any lock cylinder without sweatin' bullets, you can - once you understand what I call "The Rule of Twenty-Three" - do anything to a Best/Falcon cylinder that you can do to a Kwikset. It just takes a little longer and some special tools.

True, the tolerances are closer and the work is more exacting. And, without the proper equipment, pinning cylinders and cutting keys can be a bear. But! If you want to get into IC core servicing and sales, the work is stimulating, interesting and profitable. And, you can put yourself in the IC core business with just a little training and under a grand in equipment and inventory.



3. Using a control key to remove the core.



4. This set screw helps prevent the lock from being forcibly unscrewed from the lock case.

The basic principal that governs the operation of a Best/Falcon cylinder is the fact that the core has two shear lines. *(See illustration 1.)* The primary shear line, or Operating Shearline, is for the change key. The change key brings the pins to the Operating Shearline and allows the plug to turn just like in a standard cylinder.

The secondary shear line (Called the Control Shear Line) is operated by the control key and allows the core to be removed from the cylinder body. This is accomplished when the control pins are brought to the shearline created between the top of the Control Lug and the bottom of the cylinder's upper pin chambers.

I guess I should make mention of the fact that each of these shearlines are separate and distinct entities. That is, if you somehow pinned a plug so that some pins chambers were aligned at one shear line, and some chambers at the other, nothing would happen! The plug would not operate. All the chambers must be lined up at either the operating shearline or the control shearline .... not any combination of the two. *(See photograph 2.)*

To remove the core, just insert the control key, turn it about 15° to the right and pull the core out If the core is masterkeyed (and most are) then you effectively have three shear lines. However, the shearline created by the master key is still at the plug's normal shear line just as it would be in a standard lock cylinder.

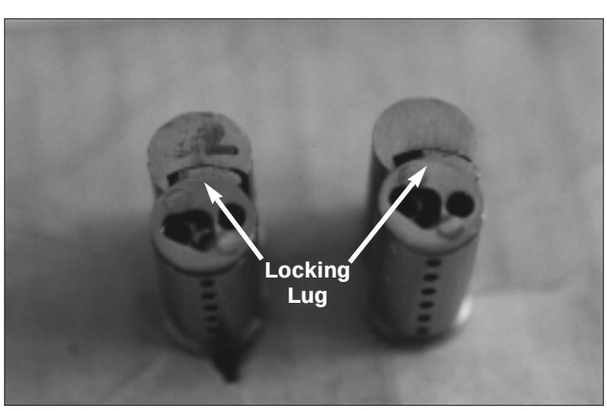
Photograph three shows the control key inserted in a core, turned about 15° to the right and the old core removed. The control key inserted in the replacement plugs and the new core inserted in the cylinder. That's how a core is changed in a Best/Falcon lock cylinder The entire process takes only a matter of seconds.

The two "pins" or lugs at the back of the cylinder housing are what transfers the turning motion from the core to the cylinder's tailpiece. (These cylinders have to be ordered with the proper cam i.e., Adams Rite, Yale, etc.) A set screw on the right of the core chamber, when it is screwed all the way in, offers additional security to prevent the cylinder from being "wrenched" out of the lock case. *(See photograph 4.)*

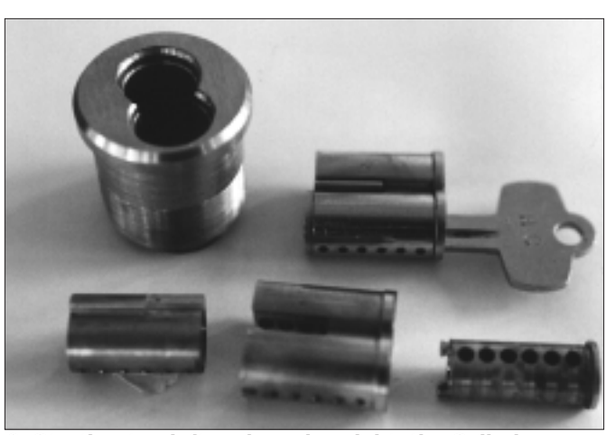
In fact, if this lock cylinder is installed in a mortise lock properly, with the set screw extended behind the wall of the lock case, a person trying to wrench the cylinder out of the lock would most likely destroy the lock case before getting the cylinder and plug out.

Photograph five shows the retainer on a Best/Falcon style plug. This is what holds the core in the cylinder and it is this retainer that is projected or withdrawn by the control key. The core on the left has the retainer retracted, which would allow the plug to be removed or inserted in an IC core cylinder.

The core on the right has the retainer extended. If this core were in a cylinder housing, then it would be "captured" until the core key is used to remove it. Note that both cores in this photo shows two holes at their rear. It is into these holes that the cylinder pins slide into.



5. The locking lug is used to retain the plug in the cylinder housing. The lug of the lock on the left is retracted, allowing the plug to be installed or removed from the lock. The plug on the right has the locking lug in the locked position.



6. Starting top left and moving right, the Cylinder Housing and a combinated core. Next comes the separation of the Control Lug, the Core Shell and the Plug.

Continued on page 94

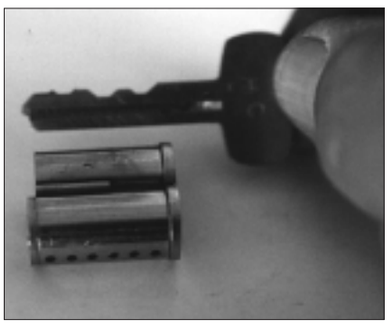
Photograph six shows a Best/Falcon cylinder with the core in progressive disassembly.

In photograph seven, notice the small square notch on the underside of the key's tip. This tip is the "index" or "stop" when the key is inserted into the lock. It is this notch that is used to index the key when cutting code or duplicate keys.

Since the stop is at the tip of the key all the cuts are read from the tip to the bow. That is just the reverse of the way we read most standard keys. When coding, decoding or preparing to code cut or duplicate a Best/Falcon key, get in the habit of holding the key with the bow pointing to the right.

Reading the key and the lock plug in this manner will help you avoid confusion and uncertainty when working with these interchangeable core locks.

There are several differences between a Best/Falcon A-2 IC core system and a standard lock cylinder that you should be aware of before progressing to the actual pinning of an IC core cylinder.



7. The Best/Falcon key uses a unique tip stop.

First, the MACS (Maximum Adjacent Cuts) safety factor on an A2 core is nine! That's it! You can have a 0-8, or a 9-1 combination side-by side and not have any problem with the operation of the cylinder if it is properly pinned.

The reasons are several. Unlike standard cylinders the space between cuts is .150" rather then the more common .156" used by most lock manufacturers. Next, the IC core pin diameter is only .110" as opposed to the typical of 115" And, the depth increments are only .0125".

Taken individually, none of these differences are of major import; but, when added together, they allow a Best/Falcon (A2) key to be cut with virtually any depth cut positioned next to nearly any other - and still have a properly functioning key and cylinder.

Next month, I'll show you how to set up a non-computer generated pinning chart (Courtesy of Falcon), how to pin an IC core plug, some of the equipment you'll need to do the work; and, where to look for this type of profitable lock work.

In the meantime, think about this: Interchangeable core locking systems are suitable to nearly any type of business or industry you care to name. Office complexes to office parks. Manufacturing concerns to management companies. Convenience store operations to carry out food services. Any where there is a rapid turnover in tenants or employees .... interchangeable core locking systems can make you money!

See y'all next month. Y'all heah!

SEROOGY SPEAKS

Notes from the Managing Editor

by Tom Seroogy

RAM, ROM, TSR, High Memory, Low Memory, Syquest, Bernoulli, CD Drive, Peripheral, Megabyte, Platform, Megahertz, I/O address, E-Mail, Quark and more.

No, this isn't an outline for a new Dr. Suess book, nor is it unpublished portions of Jabberwocky, or even ideas for the next episode of Deep Space Nine. What it is, is computer jargon.

Yes, that's right, jargon; the cryptic dialog of the pseudo-genius.

Why we use it is beyond me. Oh, sure, in theory I guess it helps those in similar careers or lines of work communicate more efficiently. But when was the last time you saw it used for that purpose? In reality it seems to be the only linguistic feat since that Tower of Babel incident where vernacular is meant to confuse.

For instance, my car was running rough so I brought it to a mechanic.

His diagnosis: The IAC is not functional because the ECM is failing to read the AFS and the OS. (Or something like that.)

Layman's terms: Your car isn't getting enough oxygen.

Or, how about parents?

Parent: Time for bed, children.

Interpretation: I want to be alone so I can eat all the Oreos.

Even locksmiths use jargon.

Locksmith: The deadlatch is failing to properly engage with the retractor slide, not allowing it to totally disengage from the strike.

Layman's terms: Your door knob's broken. It will have to be replaced.

The point here is this - everyone uses jargon to communicate. Unfortunately, its use often intimidates those on the outside. This is especially true with the fast growing field of computers. Alot of people don't want to get involved with computers because they don't understand them or the language used to describe them and their operation.

I have to admit, up until I joined *The National Locksmith* I remained computer illiterate. I was happy doing things - "The good ole fashioned way."

Since then, however, I've begun to learn more about computers and now I'm equally illiterate on both Macintosh and IBM/PC. My computer illiteracy is indicated by my new found title - Captain Crash. Being computer illiterate is okay, however, I'm learning and enjoying a new tool!

And what a tool it is. I can do my bookkeeping, correspondence, contracts, code searches, ordering, inventory, flyers and brochures, article writing and even game playing on it. In short, the computer has made my most tedious tasks faster and easier to accomplish. Plus, *The National Locksmith* is now online with America Online, allowing locksmiths from all over the world to communicate with us directly anytime you want.

How can you get involved? Simple. First, don't let jargon (or the accompanying salesperson) intimidate you. You don't have to be a computer "Geek" to purchase or use a computer.

Mistakes in terminology are normal when just starting out and should be expected. Just make sure to take your time in choosing. Talk with several sales representatives from various stores. Use your first few visits to learn and be informed on what's out there. Learn from friends and other locksmiths who have computers.

Second - shop! Like calculators, the cost of computers has dropped while their capabilities have grown. A typical system, including a keyboard, mouse, monitor, the computer and some software can often be purchased for as low as $1000, and generally run from $1200 to $1700 depending on options.

Continued on page 116

THRU THE KEYHOLE

A Peek at Movers & Shakers in the Industry

ATTENTION MANUFACTURERS AND DISTRIBUTORS: Would you like your company and products to be profiled in *Thru The Keyhole* ? Please call Managing Editor, Tom Seroogy at (708) 837-2044.

Make It Usable and They Will Buy It

The Harvard Business Review tells us that traditional criteria for building a new product is not enough. The key to the success of a new product is usability.

Making a more usable product requires first finding out what the customer wants to buy and then building it. This is called "user centered design." In the movie, "Field of Dreams," you will remember the line, "If you build it we will come." This is an example of user centered design. The Hayman FS4000 safe is not another "me too" product. The features and benefits designed into the FS4000 are usable, what the customer wants and at a price that makes it easy to say yes.

The user centered design was achieved by forming the body from polyethylene - a tough thermoplastic polymer used in automotive parts, appliances, acid storage containers, gasoline tanks and more. The use of polyethylene allowed us to economically provide storage and filing systems. These desirable benefits were too expensive in an all steel safe.

Staying with the tradition of security first and with our Burglary Guarantee at the front of our minds, we determined to build a safe that would meet or exceed our expectations. The top 4" of the safe is identical to our FS line of in-floor safes – 1/2" x 1" steel door frame, 1/2" steel bolt support bar, solid five bolt locking

system, 1/4" steel walls, 1/4" (C-60) hardplate and reinforced dead bolt. The FS4000 was severely tested against 1.) pounding attack 2.) side access through the concrete 3.) pulling attack and 4.) fire. The results were so impressive that we awarded the FS4000 our burglary guarantee and added fire and seepage guarantees as well. When properly installed, Hayman guarantees that if the FS4000 is ever successfully burglarized, or allows seepage through the body, or if the FS4000 or its contents suffer fire damage, we will replace or repair the safe free.

The bottom line for the safe dealer is – if a product is priced right, built right and backed up with manufacturer guarantees it will sell. The FS4000 is 4,130 cubic inches yet retails for only $485. The body with the door removed weighs only 39 pounds and can easily be installed by one person. The patented hinge system allows the door to be removed and reinstalled with no tools. The FS4000 has burglary, fire and seepage guarantees.

The Hayman FS4000 is available directly from the factory freight FREE. For more information contact 800-444-5434.

Key Control From Megan Marie Creations, Inc.

A new, simple and profitable, key control system has been developed by Megan Marie Creations, Inc., of Mequon, Wisconsin.

The Key I.D. Kit™ which features color coded vinyl labels (not paper), which can be affixed to keys for quick identification purposes, has been test marketed to several hundred locksmiths; and is now being mad available nationally.

The test marketing revealed that the product moves strongly at the locksmith level with little merchandising help.

Rich Paetz, President and CEO of the company which bears his daughters' name, said the kits are being made available on a consignment basis to locksmiths so they can determine their marketability without having to pre-pay for the kits up front.

Rich said that there are currently five separate kits for the locksmith to sell, including ones for home, office, vehicles, and security purposes, as well as a "blank" kit which can be custom designed for any use.

Each peggable, resealable, clamshell container kit averages over 300 pre-titled, pre-numbered or blank, color-coded, pressure sensitive, strong, adhesive backed vinyl labels which can be applied directly on keys or locks.

"We use the same strength adhesive that is used on the license

plate decals so the labels will not peel off," Rich said.

In addition to the pre-printed labels for each application area; each kit contains a sampling of "blank" labels; thus allowing the customer to customize their own label, but requires you to place a second clear laminate label (which is included in each kit) over whatever you print to "final seal" your selection.

Each kit also contains a specially formulated glow in the dark sheet of vinyl labels designed with the most popular pre-printed titles and a sampling of the blank applications; as well as 12 die-cut Lock Glow Rings™, which are designed to be placed around the customer's home deadbolt locks, vehicle door locks, or mail box locks; to help us find that elusive key hole at night or during darkness. The rings come in three sizes.

To date, the Home Key I.D. Kit has been the most successful, followed in succession by the blank, office, vehicle, and security kit.

"We feel confident that every customer household could use our Home Key I.D. Kit, and that every business will want, eventually use, our Office Key I.D. Kit, once they're exposed to the quality of our product, "Rich said.

"The strength of the Home Key I.D. Kit can be attributed to the impact that the real estate market is enjoying," Rich said.

"Real estate brokers and agents are giving the Home Key I.D. Kit away to every customer that buys a new or used home from them; they're backing this up by mailing a Home/Office Key I.D. Kit to every customer who has bought a home or commercial property from them in the past. What a great promotional tool," Rich said.

He added that the agents are enclosing their business card on the pre-slotted package backs; so that the customer will remember where they got their free kit.

"Locksmiths are already talking with Real Estate agents, builders, new homeowners, and business owners about changing locks and keys, and this is a logical, natural extension of that business," Rich said.

An in-store promotional idea Rich says has been popular with the locksmiths is to open one of the kits, affix the labels to some old keys, and leave them out on the counter for exposure. "The customer sees these and wants to know more," Rich said.

Megan Marie Creations is offering, for a limited time, to send locksmiths 20 kits (four of each type) for their own evaluation and test marketing. A follow-up will be done in 60 to 90 days at which time the locksmith will decide if he or she wants to retain the product line, or return the unsold kits, while paying only for what was sold.

Rich said he feels confident that locksmiths will be re-ordering product within two weeks.

The company is also offering pre-printed mailer suggestions for locksmiths to use in business solicitations.

Megan Marie Creations, can be contacted at 6807 W. Kasota CT, Suite 100, Mequon, WI, 53092, phone 414-242-7739; fax 414-242-1745. For re-ordering, call 800-4KEY KIT.

SLIDEGUARD, Security Solutions for Sliding Glass...and More

MIWA Lock U.S.A. has recently established a subsidiary corporation to market its growing Slideguard product line. MIWA Lock, long noted for its magnetically operated high security cylinders and locksets has created Slideguard USA, Inc. to oversee the product development, manufacturing, promotion, and sales of the Slideguard line of locking devices. Since MIWA locking devices are handled only by an exclusive dealer network, management is promoting the Slideguard line under the name Slideguard USA, Inc. to invite broader distribution and interest.

Slideguards are stainless steel locks that mount directly to glass, metal, and Plexiglas without any tools. Models are also available for wood. Slideguards are available for every sliding glass window or door application, and come with both three pin keyed cylinders or thumbturns. They are available KA or KD and keyblanks are also available which can be duplicated on standard key cutting equipment. Each keyed model comes with a code on the key so owners can obtain duplicate keys from the locksmith by simply referring to the code. Models are available with both straight or "Z" locking brackets for

security on many applications. Straight brackets are used on windows and doors that have frames (like a patio door), and the "Z" type is used on frameglass. For example, a display case with sliding frameglass is the perfect application for the "Z" type. The bracket not only prevents the glass door from sliding, it also prevents the glass panes from being spread apart. Whatever the installation, you never have to worry about breaking the glass.

Some common uses for Slideguard include; patio doors, double hung windows, sliding windows, display cases, credenzas, receptionist windows, and sliding windows in pick-up trucks and RV's. With imagination you can also install a supplemental mounting plate on a patio door or window so that they can be locked in an open ventilation position.

Besides the obvious market with homeowners, some very attractive commercial markets are available to locksmiths. Almost every retailer has some form of display or showcase in their store. Hotels and motels are required to install auxiliary locks on sliding doors to patios and balconies. Many apartment complexes have inadequate locks on their patio doors.

Installation is easy. Slideguards are packaged with an adhesive and a cleaner. To install, simply crush the plastic vial of cleaner and apply to both the glass surface and the bottom of the mounting plate. Let stand for about 30 seconds to dry. Apply three drops of the adhesive on the mounting plate and place in the desired position. Apply firm pressure with your fingers and the plate will permanently bond in 60 seconds.

Slideguards are available through your favorite distributor in either bulk package or in point of sale clam shell blister packs with color artwork. Complete installation instructions are printed clearly on the package. Shop owners can profit from Slideguard with their walk-in trade. Home and business owners can install them by themselves...without tools.

Fort Knox Security Products '95

What do Whoopi Goldberg, Joe DiMaggio and Chuck Yeager have in common? All three turned to an Orem, Utah, safe manufacturer to protect their guns and other valuables.

Fort Knox Security Products makes the finest and most respected home safes in the country, according to those polled researching home safes for their personal use. T.J. James, president of Fort Knox, said not only guns owners are becoming more responsible in the security of their weapons, but homeowners are concerned about keeping family heirlooms, personal records, jewelry and works of art safe from burglars and fire. In the past, our big market has been the blue-collar sportsman and rich gun collectors, but over the last five years our demographics have grown to include stamp and coin collectors as well as people that just want their personal items... personal. Fort Knox has even built a custom safe for an insect collection worth over $37,000.

The philosophy at Fort Knox is that they are not in the business of selling just cold steel vaults. They are in the business of selling peace of mind. The peace of mind you experience by knowing that your valuables are safe. Peace of mind from knowing that your safe was constructed from American steel by American craftsman. Craftsmen who take pride in quality work.

From the beginning, Fort Knox has strived to be the pioneer in

innovations to make home safes stronger, safer and harder to break into. The ultimate in safe security has always been the multiple gear mechanism such as those used in banks and very expensive commercial safes. While the rest of the industry is still using cam systems, Fort Knox has patented their own Rack and Pinion Gear Drive. As you spin the handle two complete revolutions, up to 28 one inch locking bolts move in to assure a tight lock up every time. Another exclusive feature from Fort Knox is their patented Star Corner Bolts. Yes, it may be overkill, but Fort Knox has always had a history of overkill.

The fit and finish is another thing that Fort Knox is proud of. Only the finest metal flake acrylic enamel automotive paints available are used. Then the safe goes through a four stage paint process by professional painters. Then it moves on to a state-of-the-art drying room where the paint is baked on.

They have found that a very popular place for attack on any safe is the hinge. This will only cause damage to your beautiful safe while still protecting your valuables. The solution is hiding the hinges on the inside, and centering the dials on most of the safes to make it difficult to tell where the hinges are, or which way the door is going to open. This still allows the door to open a full 100 degrees for full access inside, yet stops the heavy door from banging up walls and furniture.

Fort Knox has also gone to the added expense of testing and certifying their fire protection. No, they are not yet fire proof, however they will keep the inside temperature of the safe under 350 degrees with outside temperatures exceeding 1200 degrees. This should give more than enough protection in the event of a fire.

In keeping with the tradition of overkill, Fort Knox offers still more innovation for '95. With ball bearings in the hardplate and drill deflectors protecting the locking bolts. This makes the lock and locking mechanism virtually drill proof. This year Fort Knox also carries the uncompromising approval from Underwriters Laboratory. The listing is under Residential Security Container or Gun Safe and very few have achieved this listing.

With more than 14 models to choose from and modular interiors that can change with your needs, Fort Knox can meet your needs. This, along with an unequaled Lifetime Warranty makes Fort Knox "America's Best." Even for things beyond their control, like burglary, fire or a burglary attempt whether

they get in or not, Fort Knox will repair or replace the safe with only a police report and pre-paid freight. Of course, Fort Knox asks you not to take their word for it... just give them an honest comparison and you too will find the best dollar value in Fort Knox. For more information call 800-821-5216.

Automatic Gate Supply Company

In automatic gate openers we must recognize that horsepower does not open gates, torque does. Torque is how hard the output sprocket pulls on the chain. It's true, of course, that horsepower and torque are related. Multiply how hard you pull on that chain to how fast you are pulling and you have horsepower.

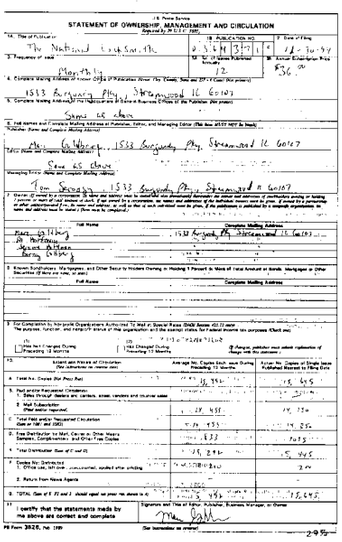
It is important because only 1/10 horsepower is needed to move the gate one foot a second. The 1/10 HP would pull the gate with force of about 120 pounds, and that is enough for almost any gate that is equipped with wheels and track that are in good condition.

The catch is that 120 pounds is only good at the rated RPM on all motors. That's why we have a clutch and four or five gears on a car. The gas motor has very little torque at low speeds when we start moving.

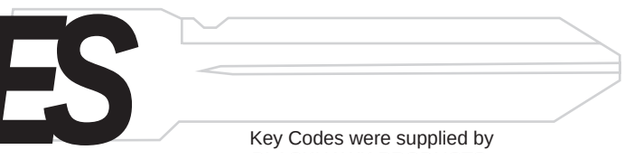
The AC motors used on gate operators are not much better. The 1/10 horsepower rating could not get the gate started, not even slowly. Low speed torque is just not there. That's why AC motors rated at 1/2 horsepower are needed. Again, we need to have that low speed torque. The DC motor delivers the torque at the start. Even that hypothetical motor of 1/10 horsepower would start out with 120 pounds of pull on the gate, that should be enough.

Look at it a little differently, a 1/2 horsepower DC motor that's when it is needed. After it gets up to speed what is needed is a brake to stop it. The DC motor gives us this for free. That's one of the reasons the people that make train locomotives quit using steam engines and started making diesel electric.....that electric part is a DC motor. Talk about something that takes a lot of torque to get moving, try a train of freight cars. Need we say more?

By: Joe Brickner
Automatic Gate Supply Company
16521 Saticoy Street
Van Nuys, CA 91406


STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

KEY CODES



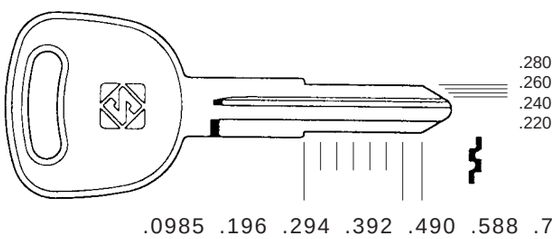
Key Codes were supplied by
BLACKHAWK PRODUCTS.

Kia Sephia

Y7001-8000

HPC 1200 CM
Code Card - CF301
Cutter - CW1011
Stop - Shoulder

Framon
Cut start - .0985"
Cutter - FC8445
Cut to cut (cuts 1 thru 6 only) - .0985", Spacing Block #5
Cut 6 to cut 7 - .118"
Stop - Shoulder



Y7001 1234231	Y7052 2144223	Y7103 4133442	Y7154 1332421	Y7205 1314312	Y7256 2412423
Y7002 1412143	Y7053 1243321	Y7104 1242243	Y7155 2341342	Y7206 4141213	Y7257 2243114
Y7003 1324214	Y7054 3313241	Y7105 2114143	Y7156 1133432	Y7207 2314143	Y7258 2422143
Y7004 1241233	Y7055 1413132	Y7106 1243124	Y7157 2234113	Y7208 2412134	Y7259 4112123
Y7005 2424413	Y7056 2132431	Y7107 2113243	Y7158 2142331	Y7209 1421213	Y7260 1331324
Y7006 4141432	Y7057 3144123	Y7108 1343421	Y7159 1144313	Y7210 2143431	Y7261 1243341
Y7007 4241223	Y7058 3132431	Y7109 1121243	Y7160 1313432	Y7211 3122441	Y7262 1433112
Y7008 1313214	Y7059 1321224	Y7110 3132314	Y7161 2113441	Y7212 4122134	Y7263 3142431
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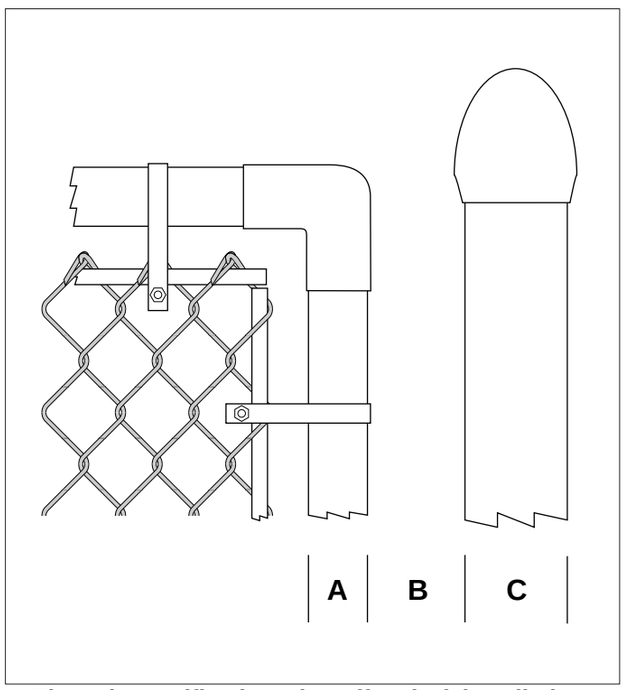
Locking Up The Problem Child

From Problem To Profit

International Locking Devices offers options for locking chain link fence gates.

by Tom Seroogy



1. The only specifications that effect lock installation are the fence gate diameter (A), fence post diameter (C) and clearance dimensions (B). Of these, the clearance between the fence gate and the fence post can be adjusted.

Normally left up to the customer who purchases a padlock at a local hardware store, fence gates and locks are typically only a passing thought for most locksmiths. In fact, except for offering a few of our own chains and locks, most of us view fence locks as a problem child – always wanting attention, but not worth the time.

Yet, in September 1994's ASIS issue of *The National Locksmith*, we introduced a fence gate lock that was not only effective but also inexpensive and easy to install. Today we are going to cover these fence locks manufactured by International Locking Devices more thoroughly.

Before looking at the locks, however, let's take a good close look at the typical residential chain link fence. It is here that the parameters for the installation are set; these include the fence gate diameter, the fence post diameter and the distance between the fence gate and the fence post.

Typically, the frame for the fence gate consists of posts coming in one of three diameters – 1-3/8", 1-5/8" and 2". This dimension is critical to the size clamp or gate collar needed by an ILD lock for mounting to the gate. Residential gates typically use the 1-3/8" or 1-5/8" gate diameters, while commercial applications use the heavier 2" diameter gate diameter.

The fence post that serves as the "strike" side of this locking system is usually 2" to 2-1/2" for residential applications and 2-1/2" to 3" for commercial applications. This dimension will determine the proper fork size on the ILD lock.

The final measurement is the distance between the fence gate and the fence post. Once the lock is attached the clearance between these two positions needs to be wide enough to allow the fence gate to swing freely through the opening as well as allow the fork to drop or swing into position for locking. *(See illustration 1.)*

Unlike the other dimensions, the fence gate/fence post clearance can change and is adjustable. Incorrectly installed fence posts, drastic weather changes and other outside influences can shift and move fence posts both dramatically and in a very short period of time. While

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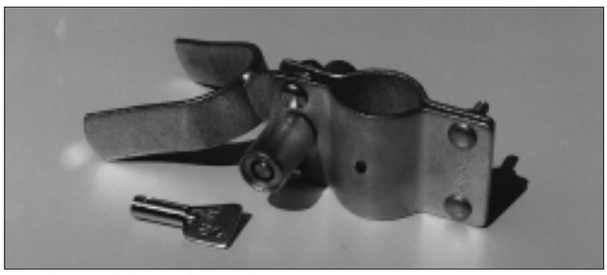
fences that have been installed professionally and correctly are less susceptible to movement from environmental changes, movement and a change in clearance should always be a concern.



2. The Quick Lock Push Button Gate Lock.

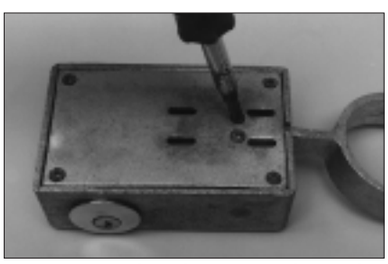
3. Place the push button lock up to the gate and fasten with the four carriage bolts.

Fortunately, the clearance can be adjusted by loosening and repositioning the fence gate hinges and fence gate. This is simply accomplished by loosening the hinge bolts and rotating the hinges to pull the gate back. The only unfortunate aspect to this adjustment procedure is that it often brings the gate and its hinges out of alignment with the fence line. In most cases, however, this is only a matter of aesthetics.

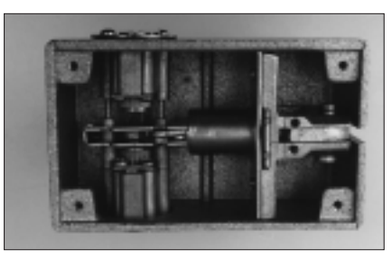
4. Tighten the set screws on the sides of the collars.

5. The installed Push Button lock.

6. The Double Cylinder Deadbolt Gate Lock.

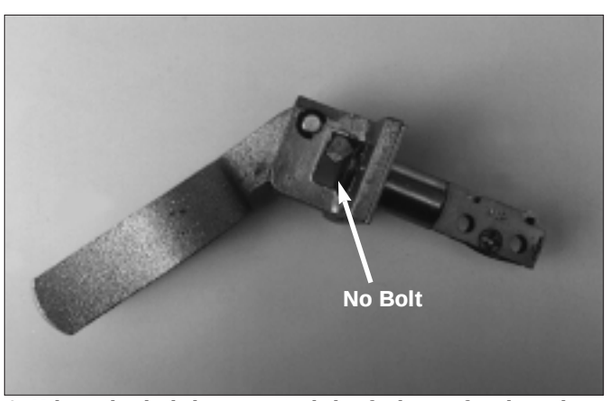


7. Remove the six screws from the back plate.

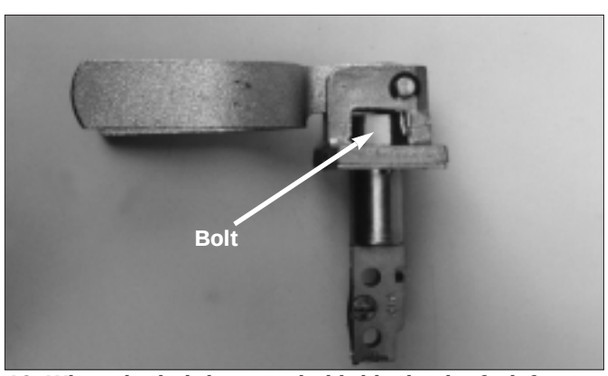


8. The inside of this unit is nothing more than a slightly modified double cylinder deadbolt (hence the name).

For knowing what lock to purchase (or keep in stock) the fence gate diameter de-termines the clamp or gate collar size needed by the lock and the fence post diameter deter-mines the size of the fork. ILD offers a variety of confi-gurations between collar and fork size, although their deadbolt and push button lock will accommodate a majority of the residential and com-



9. When the bolt is retracted the fork can freely swing.



10. When the bolt is extended it blocks the fork from swinging.

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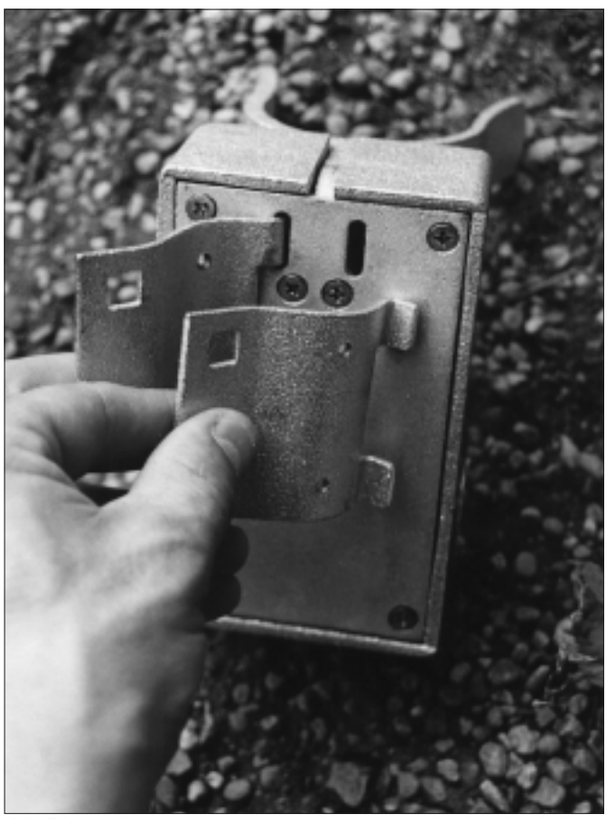


11. Place the correct gate collars into the back of the lock.

12. Holding the unit up to the gate, install the carriage bolts.

mercial applications we normally run into.

With the dimensions in hand, there are three lock styles that ILD offers – the Quick Lock Push Button Gate Lock ($13.95), the Double Cylinder Deadbolt Gate Lock ($28.95) and the Automatic/Self Locking Gate Lock ($49.95).

The simplest and least expensive of the three is the Quick Lock Push Button Lock which consists of two collars and two push button locks (one from each side). *(See photograph 2.)* The key for this lock is tubular or barrel in style and has a notch near the tip. There are no tumblers or shearlines with this lock. The key is inserted into the keyway and turned. The notch in the key latches onto a post in the lock. The key and plug are then pulled out to unlock.

To install, the unit is held to the fence gate at the desired height and clamped using the four carriage bolts provided. *(See photograph 3.)* Finally, tighten the small set screws on the side of each lock gate collar. *(See photograph 4.)* Voila, it's done. *(See photograph 5.)*

The next model, and probably the locksmiths' favorite, is the Double Cylinder Deadbolt unit. *(See photograph 6.)* This lock is more versatile than the previous lock in that it uses a pin tumbler lock cylinder and key. Actually, the unit incorporates a slightly modified imported deadbolt utilizing a generic Kwikset style keyway.

With some experimentation and slight modifications, other deadbolt units may be able to be employed, allowing keying into the customer's key system.

For a look inside, remove the six screws holding the back cover to the lock body. Two of the screws are in close proximity to one another and towards the center of the lock. These screws are attached to the fork lock assembly. *(See photograph 7.)*

With the back cover removed, all the components are clearly seen. *(See*

13. Tighten the set screws on the collar.

14. Test the completed installation.

photograph 8.) Using tamper resistant screws the two cylinders are mounted like any other deadbolt less the collars. The faceplate of the bolt was modified to fit into the fork lock assembly. In the unlocked position, the bolt is retracted, allowing free movement of the fork. *(See photograph 9.)* When locked, the bolt extends into the path of the fork and prevents the fork from moving. *(See photograph 10.)*

To rekey the cylinders it is not necessary to disassemble the unit. Remove the tamper resistant screws and service like a normal double cylinder deadbolt.

This particular lock comes with three sets of gate collars for the different diameter fence gates. Choose the set of collars to fit the fence gate and position them in the back of the lock body. *(See photograph 11.)*

Hold the lock up to the fence gate and install the carriage bolts supplied with the unit. *(See photograph 12.)* After tightening the bolts, secure the unit by tightening the set screws found on the sides of the collars. *(See photograph 13.)* The job is complete. *(See photograph 14.)*

The final lock is the heaviest of the three styles offered by ILD. The Automatic/Self Locking gate lock is designed for automatic latching and meets existing pool regulations of most municipalities for self-locking

Continued on page next page

INDUSTRY MEETINGS

February 11-12, 1995
18th Annual West Coast
Lock Collectors Show and Sale
Embassy Suites Hotel,
211 E. Huntington Drive, Arcadia, CA
Contact: Bob Heilemann,
c/o Ace Lock & Key,
1427 Lincoln Blvd., Santa Monica, CA 90401 Evening Only Phone (310) 230-3004 Message (310) 454-7295 (No Collect Calls).

February 14-16, 1995
International Security Conference & Exposition West '95
Anaheim Convention Center
800 West Katella, Anaheim, CA 92802
Contact: Reed Exhibition Companies 383 Main Avenue, Norwalk, CT 06851, Ph: (203) 840-5802.

February 18, 1995
Oklahoma Master Locksmith Association
Distributors Trade Show
Grandview Park Inn, Tulsa, OK
Contact: Bill Travis (918) 742-0266.

March 8-12, 1995
Texas Locksmiths Association
Annual Convention
Arlington Marriot and Convention Center, Arlington, TX
Contact: Nancy Viaille (806) 795-7117.

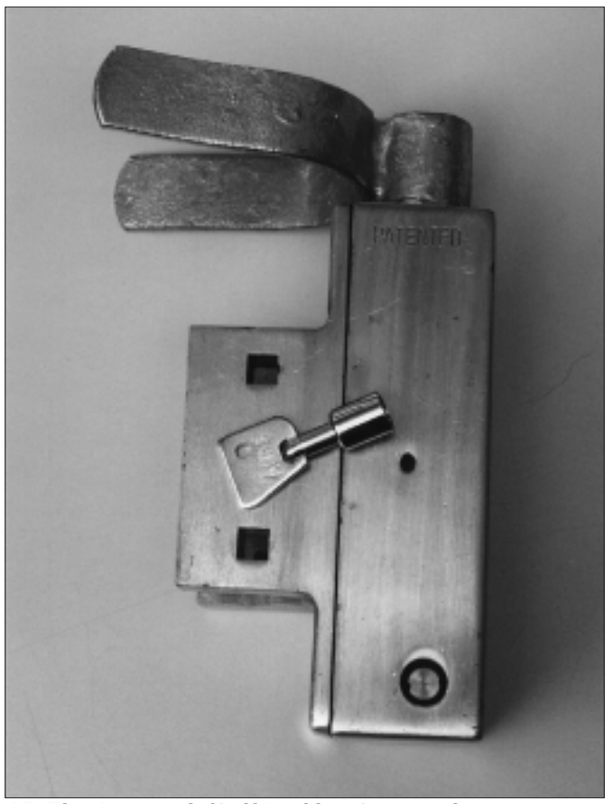
March 12, 1995
Southern Lock and Supply Co.'s annual "Buyers Trade Show"
St. Petersburg Hilton,
downtown St. Petersburg, FL
Contact: Celeste Orr (800) 282-2837.

March 18, 1995
LADC 38th Annual Awards banquet
Holiday Inn - Calverton: 4095 Powder Mill Road, Beltsville, MD
Contact: Banquet Chairman Les S. Brodsky (202) 722-0900.

March 18 & 19, 1995
Greater Chicago Locksmiths Association
10th Annual Midwest Trade Show
Olympia Plaza Hotel, 4141 Calumet Ave., Hammond, Indiana
Contact: Kathy Zaniolo (708) 386-3334.

March 30-April 2, 1995
Master Locksmiths Association of New Jersey convention
Contact: Master Locksmiths Association of New Jersey, P.O. Box 2441, Morristown, New Jersey 07962-2441.

October 6-8, 1995
1995 MINK Convention and Trade Show
Omaha, NE
Contact: Keith Delano (308) 345-6174.



15. The Automatic/Self Locking Gate Lock.

16. This unique barrel style key is used to turn the locking shaft inside the lock.

17. Marking the mounting hole for drilling.

18. Use a 3/8" drill to make the mounting hole.

19. The completed installation.

gates and doors. *(See photograph 15.)*

The key and keyway for this system is unique, employing a tubular or barrel key profile. Each side of the barrel is dimpled and fits snugly around the center shaft of the keyway. Like the first lock we looked at, there are no tumblers or shearlines. Once the key is inserted into the lock, the two dimples are used to grab and turn the lock shaft and unlock the fork. Alternate keying is not yet available for this lock. *(See photograph 16.)*

Unlike any of the other locks, the fork on this unit turns instead of drops into place around the fence post.

This lock does not offer replaceable fence gate diameter collars and must be ordered to size. Make sure of the fence gate and fence post diameter before ordering this unit.

Like the other units, this lock is very easy to install. Holding the unit snugly in position on the fence gate, mark for one of the two collar holes. *(See photograph 17.)*

Use a 3/8" bit to drill a hole through the diameter of the fence gate. Mount the lock to the gate using the provided carriage bolt and mark and drill for the second hole. Install the second carriage bolt. *(See photograph 18.)*

Being able to offer customers a convenient form of locking their gate at a relatively low cost should open new doors of profit for the locksmith. Most installations only take ten to 15 minutes. *(See photograph 19.)*

With a recent sweep of swimming pool regulations around the country, the Automatic/Self Locking Gate Lock is perfect for municipal pools, and demands a more fitting profit.

In any case, offering these locks to your customers is a fast, easy way to increase the bottom line on each job!

For more information on the ILD fence locks, contact International Locking Devices at 800-863-9600.

GENERAL TEST

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4 .168”
5 .138”
6 .108”

(Actual dimensions read from a standard micrometer will read about .008” higher.)

MACS = 4

Medeco Biaxial architectural hardware keys are cut with either five or six cuts. Fore cuts start at .213” from the shoulder, .170” cut to cut for each fore cut thereafter. Aft cuts start at .275” from the shoulder, .170” cut to cut for each aft cut thereafter. HPC 1200 users should use HPC Code Card CSP3 or equivalent; Cutter CW-1012, and Jaw A. Framon users can use the Biaxial Space Block and the CC-001 cutter. (See illustration 8 and 9.)

Medeco Root Depth Dimensions For Biaxial Architectural Keys

1 .264”
2 .239”
3 .214”
4 .189”
5 .164”
6 .139”

(Actual dimensions read from a standard micrometer will read about .008” higher.)

MACS is dependent upon the type of cut and the one immediately preceding it.

Aft to Fore = MACS 2

Aft to Aft = MACS 3

Fore to Fore= MACS 3

Fore to Aft = MACS 4

SEROOGY SPEAKS

Continued from page 95

More common now are systems that include the software and equipment to fax and get online services (like Prodigy, Internet and America Online). While the low cost systems are okay for starting out, most locksmiths start adding more memory and software once they are familiar with its workings.

Is it worth it?

I haven’t had a locksmith say “No” so far.

RULE NUMBER 45.3

Don’t ever use an issue of *The National Locksmith*® to line your bird cage.

TEST DRIVE

Taking Industry Products for a Spin Around the Block

All-Lock Ford 10-Cut Locks

PRODUCT: Ford 10-Cut aftermarket replacement ignition, door and trunk locks, and service kits by All-Lock. Prices dependent on lock or service kit purchased. Available through All-Lock Distributors. *(See photograph below.)*

PRODUCT DESCRIPTION: Ford 10-Cut ignitions, door and trunk locks, available keyed or as an uncoded service packages.

The A6100 Ford Side Bar Service Kit includes tumblers, tumbler springs and tumbler caps for Ford 10-Cut sidebar ignitions.

DESCRIPTION: All-Lock Ford 1-Cut Locks & Service Kits.
COMMENTS: Uncoded lock packages are the ultimate in Ford 10-Cut lock service.
TEST DRIVE RESULTS: Keeping a few of these locks and service kits on the truck can make Ford 10-Cut work a pleasure.

The A6725 Ford 10-Bit (cut) service kit, an assortment of facecaps, tailpieces or pawls and dust covers.

(The A6700 pinning kit with tumblers for 10-Cut door locks is also available, but was not included for this review.)

FRIENDLINESS: The friendliness of the Ford 10-Cut locks is achieved by the availability of both coded and uncoded service packages in both chrome and black versions.

At the time of this review, 18 Ford 10-Cut ignitions are available (9 keyed, 9 uncoded service packages), 2 door locks (1 keyed, 1 uncoded service kit), and 4 trunk locks (2 keyed, 2 uncoded service packages).

FEATURES: All keyed locks come with two look alike keys less the OEM logo. Rubber headed keys are provided for those locks normally supplied with rubber heads.

An appealing alternative to the keyed lock is the uncoded lock package. This unit allows the locksmith to key the lock up to the vehicle's existing key system without any hassles.

Just a part of the All-Lock Ford 10-Cut selection.

The A6725 service kit offers a variety of facecaps currently used by Ford, for easy rekeying and servicing of existing door locks. The common plastic door lock pawls are also in this kit.

The A6100 kit includes the tumblers, springs and tumbler caps for the side bar ignitions.

All service kits have covers that include an illustration and part number for each component in the kit, making reordering easy.

COMMENTS AND SUGGESTIONS: With the number of changes made by Ford since the introduction of their 10-Cut system in 1984-1/2, the convenience of having a ready supply of locks and lock packages makes the locksmith's job much more pleasurable.

Offering keyable lock packages saves the locksmith from worrying about ordering several locks to match the overlapping ignition/door tumblers found in the original Ford 10-Cut system.

The only part lacking to the Ford 10-Cut line is the limited number of 10-Cut door locks offered. (According to All-Lock, these locks are expected in the near future. Keep your eyes open.)

CONCLUSION: All-Lock provides an excellent assortment of Ford 10-Cut locks in both coded and uncoded versions. Service components for keying and repair are readily available. Keeping a few of these locks as well as the service kits on hand is a sure way to make Ford 10-Cut service easier and enhance the locksmith's image as a prepared professional.