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September 2001  
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No. 9  
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# The National Locksmith®

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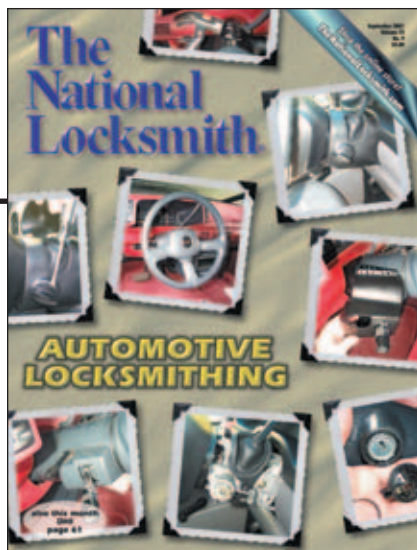
## AUTOMOTIVE LOCKSMITHING



also this month  
DHI  
page 61



**On The Cover...**



The term "automotive locksmithing" encompasses a number of service possibilities. With vehicle security being one of them, Steadfast offers security collars that are unique and formidable.

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# CONTENTS

The National Locksmith September 2001 • Vol. 72, No. 9

## FEATURES

- |  |           |   |   |
|--|-----------|---|---|
| <b>COVER FEATURE!</b>                          | <b>14</b> |   |   |
|  |           | <b>Steadfast Armored Ignition Collars, Part 1</b> |   |
|  | <b>22</b> |   | <b>66</b>                                   |
| <b>Automotive Locksmith Tools</b>              |           |   | <b>DHI Product Showcase</b>                 |
|  | <b>26</b> |   | <b>74</b>                                   |
| <b>2001 Oldsmobile Aurora Ignition, Part 1</b> |           |   | <b>The Detex® Value Series</b>              |
|  | <b>34</b> |   | <b>81</b>                                   |
| <b>Safe Products</b>                           |           |   | <b>KeyWizard</b>                            |
|  | <b>35</b> |   | <b>84</b>                                   |
| <b>Quick Entry Update</b>                      |           |   | <b>Peaks® 6340 Cores For Medeco</b>         |
|  | <b>38</b> |   | <b>86</b>                                   |
| <b>Non-Intrusive Car Opening Techniques</b>    |           |   | <b>Understanding Access Control, Part 1</b> |
|  | <b>44</b> |   | <b>100</b>                                  |
| <b>LAB's New Pinning Kit</b>                   |           |   | <b>Unlocking The 2001 Acura MDX And CL</b>  |
|  | <b>46</b> |   | <b>122</b>                                  |
| <b>Locks, Safes And Security</b>               |           |   | <b>1999 BMW R1100GS, Part 1</b>             |
|  | <b>56</b> |   | <b>CODES 130</b>                            |
| <b>AMSEC-mini</b>                              |           |   | <b>Dodge M0001-M2618</b>                    |
|  | <b>63</b> |   | <b>145</b>                                  |
| <b>DHI's 26th Convention And Exposition</b>    |           |   | <b>Closing The Sale</b>                     |

## DEPARTMENTS

- |           |                          |            |                         |
|-----------|--------------------------|------------|-------------------------|
| <b>5</b>  | <b>COMMENTARY</b>        | <b>97</b>  | <b>THE CASH STATION</b> |
| <b>6</b>  | <b>MANGO'S MESSAGE</b>   | <b>104</b> | <b>TECHNITIPS</b>       |
| <b>10</b> | <b>LETTERS</b>           | <b>129</b> | <b>BUSINESS BRIEFS</b>  |
| <b>50</b> | <b>BEGINNER'S CORNER</b> | <b>152</b> | <b>TEST DRIVE</b>       |
| <b>54</b> | <b>THE LIGHTER SIDE</b>  |            |                         |

# COMMENTARY



## Make them pay or give them the boot!

One of the topics most frequently discussed among locksmiths is that of national service providers (NSP) in general, and roadside assistance plans specifically.

It used to be that motor clubs provided a valued addition to many locksmith companies by referring automotive jobs, mostly car openings, and paying a fair rate for completion of this work.

Some years ago, however, clubs such as AAA have replaced many locksmiths with tow operators, and in other regions have placed severe restrictions on the pay scale for this work. Sometimes those restrictions have not even taken into account the distance traveled by the locksmith, nor the time of day...or night.

This has caused a furor among locksmiths over the years. I have read endless letters to the editor on the topic, and lengthy threads in the locksmith forums on TheNationalLocksmith.com.

Unfortunately, no one is in a position to dictate to national service providers what prevailing rate they will pay. Their own desire is to reduce their expenses, and maximize their profits. While this may cause angst for many locksmiths, it is also precisely the same good business sense that locksmiths must apply when deciding whether or not to accept NSP rates for doing their jobs.

For example, you may find the rate in your local area has been cut from \$40 for a car opening to \$22. While I do not doubt that this will make you angry, I think the only sensible reaction is to carefully evaluate your time and overhead, then apply the same business sense to the situation that the NSP's employ.

That means that you must evaluate the worth of your time, and the expense of responding to a job. If you find that the rates you are offered provide you with a margin of profit you can live

with, accept the work. If the jobs are no longer profitable, then refuse the work. Sometimes you can actually improve your bottom line by turning certain unprofitable jobs away.

And don't forget that you can always try to negotiate better rates. If there are few alternatives, the NSP's will negotiate, and this is the reason that rates vary from region to region.

Mike Sullivan of Broward Century Lock in Deerfield Beach, FL notes, "We stopped doing most car openings about five years ago. We only do a few a year and we get \$53.50 when we do it. And that's during the day. Car openings have become mostly a \$20 to \$25 venture. If car openings are all you want to do and you can get the volume, then you may be able to make money if you do a huge volume."

Mike concludes, "Instead we concentrated more on safe sales, access control and finding more commercial accounts. We took the time we had been spending on car openings, put it in another more profitable direction, and we're glad we did."

If you're struggling with this issue, you can do the same.



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**Marc Goldberg**  
Publisher

# Mango's Message

**T**he crisis began about three o'clock in the afternoon. My wife, Rachel, and I had just checked into the Hyatt Regency Inner Harbor hotel in downtown Baltimore minutes earlier. We were there in preparation for the 2001 ALOA International Convention and Security Expo being held at the Baltimore Convention Center across the street. Just blocks away, billowing black smoke was streaming into the sky and sirens were audible everywhere, indicating something was obviously on fire. Like the saying goes, where there's smoke, there's fire.

Not thinking too much about it, I turned on the TV to see if news of the incident was being reported yet... it was. Every station I turned to had a frantic newscaster propped before the image of a CSX locomotive, suggesting that everyone within a five block radius of the incident, evacuate the area immediately! "What's this?" I thought to myself. It became immediately evident that this was not your typical house fire, as hordes of firefighters descended on the area.

Police, some wearing face masks and respirators, blocked all major highways as well as local arteries into Baltimore. Thousands of baseball fans in town to catch the second game of the Orioles-Texas Rangers doubleheader, were being ushered out of the stadium, while the Coast Guard closed the Inner Harbor to boat traffic. Drivers were trapped for hours on gridlocked streets, and the Metro subway was closed until inspectors were sure there was no smoke in the tubes.

Meanwhile, in the bowels of the earth a toxic inferno was burning out of control, as a derailed 60-car CSX train screeched to a halt in the middle of a 1-1/2 mile long tunnel, known as the Howard Street tunnel. Choking black smoke spewed from the tunnel and manhole covers above, while murmurs of a possible explosion circulated. The train was carrying wood, paper products and hazardous materials: fluorosalicic acid, hydrochloric acid and glacial acetic acid. Other substances included ethylhexyl phthalate, propylene and tripropylene glycol.

Among the most dangerous was the fluorosalicic acid, a chemical known to you and I as fluoride, an ingredient in toothpaste which protects your teeth from cavities. In its concentrated form, it can cause severe burns to skin, lungs, nose and throat.

Tripropylene glycol, is a compound used to de-ice airplanes and plumbing pipes. The other chemicals

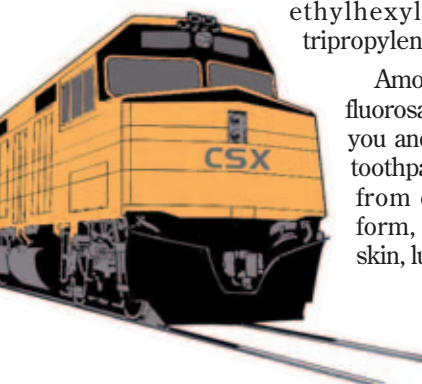
## A Burning Inferno

present are mildly to moderately irritating to eyes, lungs and throat when they are inhaled, and can burn the skin.

It was estimated that half of the 20,000-gallon tanker car loaded with hydrochloric acid spilled, seeping into storm sewer drains inside the tunnel and carried into the waterway of the Inner Harbor. Rachel and I happened to be walking around the Inner Harbor when a hazardous materials task force and the Coast Guard positioned floating booms to contain the chemical run-off.

Firefighters scanned the ground with high-tech thermal imaging devices in an attempt to detect the exact location of the fire, while temperatures inside the tunnel rose to 1,500 degrees Fahrenheit, hot enough to cause some of the CSX rail cars to glow in the dark, soot filled tunnel. Other firefighters tried to reach the train with water cannons, but were forced back by what they thought were chemicals making their skin burn. At least 22 people, including two firefighters with chest pains, were treated at area hospitals, most for respiratory or eye irritation.

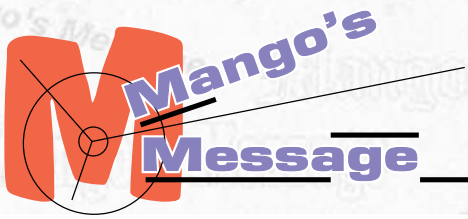
In an attempt to remove the chemicals, a huge vacuum



**Continued on  
page 8.**

*Greg Mango*

**Greg Mango  
Editor**



Continued from page 6

hose was lowered through a manhole at street level into the trains tanker car. CSX hazardous contractors then pumped the remaining chemicals into tanker trucks above.

As if this wasn't enough, within hours of the derailment, a 48-inch water main above the Howard Street tunnel broke. Millions of gallons of water was sent cascading across streets, forming a river two feet deep. Water service was disrupted to some businesses, including our hotel. There would be no showers, no toilets, or thirst quenching for a while.

That evening Rachel and I, along with Jeff Adair, LaVerne Schertzing and Allan Galvez (all TNL employees), went to a local steak house for dinner. As our waitress greeted us and gathered our drink orders, she informed us that only bottled water (at \$5 a bottle, carbonated or not) would be served due to the water main break.

One theory for the rupture was that the fire inside the tunnel heated the water pipe to the point that the water inside boiled, causing the pipe to eventually explode. In the 100 hours that the water main was broken, the pipe spewed an estimated 76 million gallons of water.

It was later reported that the CSX train derailment also damaged cables that transport Internet data, e-mail and phone calls. Fiber optic cables running through the tunnel where the train caught fire are a major line between New York and Miami. The cables were destroyed, causing headaches for several major telecommunications carriers. A

Silicon Valley company that tracks Internet traffic said the train accident caused the worst congestion in cyberspace in the three years that it has monitored such data.

The big question, however, still remained. What caused this accident?

It was initially reported that the train had derailed, causing chemicals to spill and ignite from the sparks caused by the derailment. Other reports surmised that water caused the derailment. Others posed the possibility of a mechanical failure, while still others questioned whether the train derailed at all. At the time, the exact cause of the accident was unknown.

The CSX train conductor and engineer were the only known occupants of the train. They said the trains automatic emergency braking system activated mid-way through the tunnel and they were unable to reset the air brakes. They initially thought that the smoke was exhaust from the diesel engines and set about uncoupling and driving them out of the tunnel. After completing that task they recognised they had a bigger problem and notified officials.

Amongst all the chaos and excitement at this years ALOA convention, I'm sorry to report that there was one fatality. It was not, however, a firefighter, police officer, hazardous materials task force worker, or city worker battling the Baltimore inferno. It was an ALOA exhibitor attendee named Debbie Maul. Many of you know Debbie as a 16-year veteran and sales and marketing administrator for the PDQ/American Eagle Lock Company. Debbie had just transferred to the American Eagle Lock division, and this ALOA convention was her first trade show for American Eagle.

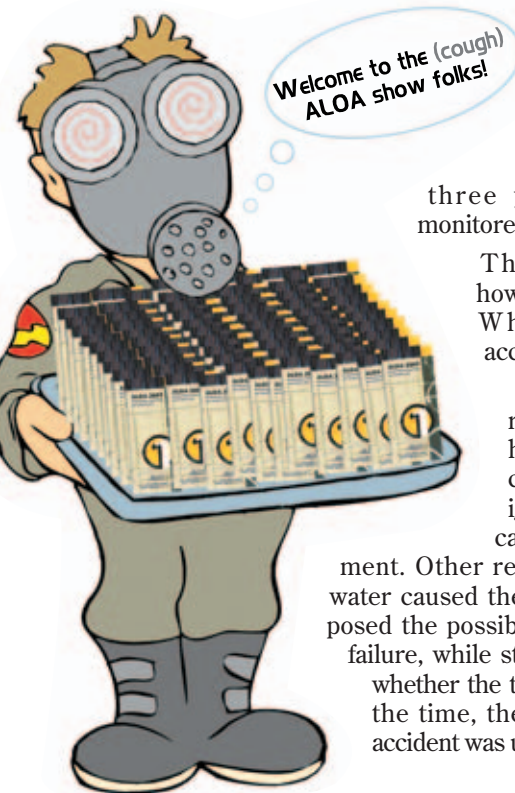
Debbie was staying at the Marriott Inner Harbor where she had gone for breakfast before working the convention. After breakfast she indicated that she was feeling ill and decided to go back to her room. After not appearing in her exhibitor booth at the convention, a concerned co-worker went to check on her. When she did not respond to knocks on her door, Michael O'Connor, Executive Vice President and CEO of PDQ was called. He requested that the hotel open the door to investigate.

Debbie was found on the bed lifeless, as they tried to resuscitate her. She was transferred to the hospital where she was pronounced dead. At this time the cause of death is unknown. Debbie was only 45-years old.

O'Connor said Debbie was one of the backbones of the company and did something she liked; she liked promoting PDQ, she liked working conventions and she liked the beach, which she was able to see the day before.

From all of us at *The National Locksmith*, our sincere condolences to all of Debbie's family members and PDQ/American Eagle Lock company. She will be missed by many.

Oh, did I mention how this year's ALOA 2001 International Convention and Security Expo was? Well, given the unforeseen circumstances, let's just say I hope I'll get to see you at next year's show in Rosemont, Illinois. And leave your respirator and rubber boots home. **TNL**



# Letters

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and length.

## Thanks for the Coverage

I wanted to thank Richard Dickey very much for featuring our product in your July issue. He has covered the topic in his usual thorough and very readable manner. I especially appreciated the extra space devoted to explaining the underlying technology behind proximity systems.

Technical articles like this are exactly what the locksmith community needs. Keep up the good work.

*Paul F. Chandler  
Product Marketing Manager  
SecuraKey*

## MOV's

I just got finished reading Richard Dickey's article on the SecuraKey RK-100M. Great information, but there's a couple of things about MOV's that are important that were omitted.

The Metal Oxide Varistor works as stated, but since it has to protect many different types of circuits, it comes in various voltage ratings

from 10 volts to over a couple of hundred volts. Unless the MOV is supplied with the unit, you should specify the voltage (and capacity in Joules) necessary to protect the reader.

The MOV operates like a switch in that it changes resistance (from very high to very low) immediately upon an over voltage condition. It is very fast (switches in nanoseconds) and does protect the device. However, each time it does this, the capacity is reduced somewhat. At some point, the product will fail. The most common failure mode of the MOV is to remain in the low resistance condition. Unfortunately, this will cause the strike to become energized and the secured door to open. Not necessarily a good feature.

*Ed Lambert  
E-mail*

## My Locksmith Nightmare

12 months ago I had a lockout at a nice home in a trendy part of town. The gentleman that answered the door was in his early thirties and very well dressed. All his identification checked out fine and he filled out and signed my opening authority release. He said his wife would come by later that afternoon to pay the service call, as his wallet and keys had just been stolen from his work locker. Two days later when his wife hadn't shown up to pay, I called back and eventually left my card and a note in the door jamb.

A few hours later I was being visited by a couple of burley detectives. They asked me if I was the locksmith that had let Mr. X into the unit? Yes, I said. They then filled me in as to what had taken place after I let this guy in. He was



separated from his wife for about six months, so all his identification was still relevant. He laid in wait for his ex-wife to get home from work, then raped her, tortured her, drugged her, then tried to kill her and himself!

Lucky someone heard the ruckus and called the police. When they arrived, they were both close to death. I gave all my information to the detectives and showed them the signed opening release.

Eventually when this case came to court, the Judge asked me if I would like to press charges against this creep for fraud, since he had not paid me the \$45 service call! I said yes, as this was another charge that they could pin on this animal. The Judge thanked me for my help in the case and that was the end of it. Needless to say, I was pretty upset that I let this jerk in, and felt dreadfully sorry for his ex-wife, but I acted in good faith and had followed a responsible checking protocol. Always check identification, and get a signature on something! You just never know what may occur after the fact.

**The National Locksmith  
1533 Burgundy Parkway  
Streamwood, IL 60107  
Attn: Editor**

Continued from page 10

## Old Codgers

Had to share this one with you. Did a job yesterday for an old guy. When it came time to pay me, he took from his pajama pants an old leather purse full of \$1 coins. While he was counting out the \$55 into my hand, his teeth fell out right into my palm, along with a large mouth full of saliva! Yuck! I politely handed him back his teeth, opened my fingers slightly to let the spag run through while he continued counting out the dollars. I then beat a hasty retreat to the van to get some soap, and find a tap!

Steve Paris  
Queensland, Australia

## Drool

That last story reminded me of a time when I was removing a front door lock for an older guy who was about "4/3rds" drunk. He was bent over watching me work so closely, I could feel his breath on the side of my head and shoulder. Allowing for his condition I just ignored it. As I was leaving in my van I realized I still felt a warm feeling on my shoulder. You guessed it; he had actually been drooling on me. Yuck.

Jim Young  
E-mail

## Buck Shot No Powder

I thought I'd seen just about everything until yesterday. I was called to rekey some locks for a power company in Kentucky where I do most of my work. This is a very nice building about 60-years old. The locks are Corbin/Russwin Grade 1. They are the kind that slide in a large section cutout of the edge of the door. It must be a great lock because they have been there for many years and are still working great.

I took this lock apart and to my surprise the chambers were loaded with eight or nine master pins and buckshot for bottom pins. The buckshot used for bottom pins looked like about number four pin depths. There was even some number nine shot in there. At this point I would not have been surprised to see gun powder. To make matters worse, whoever did this repining job had filed the plug so much it had big hills and valleys. What's amazing is that the key turned very smoothly. Better than I could get it to work with proper pins.

Hope they never ask me to master

key the building. Would probably mean replacing all the cylinders. Has anyone else got a story like this?

Ed Hamm  
Illinois

## Doing a Great Job

Thought you might enjoy the following article that I read in the Seaford Delaware Morning Star, on April 19, 2001.

I really enjoy "The National Locksmith." Keep up the good work.

Cy Rollins  
Delaware

## Policeman and Locksmiths are Great

From the The Morning Star

On Thursday evening at about 8:15, our daughter and son-in-law came to see us. They accidentally they hit the power door locks and locked our 7-month-old granddaughter in their Jeep, with the keys in the ignition.

She was asleep the whole time.

We had no other choice but to call the Seaford Police. They came right away. I want to commend Officer Adam Chaffinch for his prompt and courteous service to our need.

He immediately looked at the situation and called for a locksmith.

Until the locksmith showed up, Officer Chaffinch continually checked on our granddaughter to make sure she was O.K. Locksmith Cy Rollins, came promptly.

Within a couple of minutes she was out, and still asleep, and had no idea what had just happened to her. We asked Mr. Rollins what the charge was and he said, "no charge."

My wife Renee and I just wanted to give a good praise report for people in our community. So many times you hear nothing but negative.

Bunky Griffith  
Seaford

## Yellow Page Ads and Marketing

Many locksmiths miss the boat with the style of their Yellow Page advertising. Do you have a complete list of services that you provide? Or are you following the trend and style of other locksmiths in your area and what they have in their ad? Is the ad professional looking? This is something that your rep needs to help you with. It is part of his job.

If he can't help you call the office

and ask for someone who can. People call us from the Yellow Pages because of the look of our ad. We have a complete listing of services, which puts our competition to shame.

This is only the beginning. Now on to marketing.

You need to get and market your business instead of waiting for the phone to ring. My membership in the chamber of commerce pays for itself and then some every year through referrals.

Contact local businesses and let them know what you can provide. I have an appointment on Tuesday at a local Marina to change their locks, upgrade padlocks and possibly sell them a high-security key system. All this from dropping off my business card and a few Rolodex cards last summer.

Rolodex cards are great for offices and easy reference. Our customers love them. Check your local library for books on marketing as well.

I have a \$4,000 master key system to do by the end of the month. This came about through a flier that I was able to enclose in my Chamber of Commerce newsletter. This property management company called me about a year ago to start doing work for them. They had a fan motor burn out in an office building and spent 20-minutes fumbling with keys to get into the unit. I was called that afternoon to look over the building! Another reason this company uses me is the quality of service, which I have provided them. I won this account from the in town locksmith who cannot provide the same quality and response in service.

Ed L  
E-mail

## Picture Perfect

Just saw your "spread" on floor closers in the May, June and July issues. It was wonderful! Thank you for giving us "equal" time. Tell Ray Moreno he did a super job. Also tell him that an intermediate pivot is not a butt hinge. Other than that, it was perfect!

Thanks again.  
Lynn Kaiser  
Rixson-Firemark



# Steadfast

# Armored Ignition Collars

**Part 1**  
**by Raymond Moreno**

This month we'll be hitting on a different subject altogether. I will be talking about a product that is not completely new to the locksmithing community, but has been around since the early 1980's. As a matter of fact, one of the reasons that I'm writing about this product is that there are still locksmiths who have been called to originate an automotive key, have come across these little puppies installed on a column, and left scratching their heads in bewilderment. And what is this nefarious little product? Armored ignition collars.

These specific collars were meant to fit onto a few different makes and models of vehicles (GM Saginaw columns tilt or non-tilt, some Ford vehicles, some Chrysler vehicles, and currently, some Nissan vehicles as well). But first, let me give you a little general information.

The Steadfast Corporation was started in 1981. It started by manufacturing a vehicle anti-theft device, which was designed to fit around the steering column of GM automobiles and trucks. The primary sales targets were the fleet operators. The collars worked by preventing the would-be thief from gaining access to the ignition switch, and also preventing them from "popping-out" the ignition cylinder. By 1987, "Secure Car Enterprises" was a distributor of the Steadfast line. At the end of October 2000, Mitkos Zargoff, the owner of Steadfast Corporation, decided that with the introduction of transponder technology, he should sell off the various product divisions of his company.

When James Reilly (the current head honcho of Secure Car Enterprises) heard that he could purchase the dies and rights to produce the collar, he jumped at the chance.

Secure Car Enterprises is now manufacturing the GM security collars for the standard Saginaw tilt and non-tilt

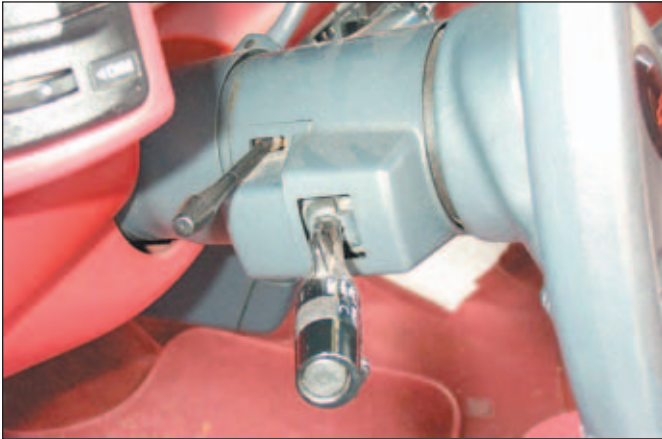


**1. The "wrap around" collar.**



**2. Three different sizes of shields.**





3. The steering column.



6. Insert the shield between the dash.



4. Remove the "ears."



7. Rotate the shield clockwise.



5. The ears remove easily.

column and the new, heat treated chrome finish "Steadfast Pro," which is for Nissan vehicles. Secure Car Enterprises is also selling the "InvisiGUARD" line of armored collars. This style of armored collar is totally hidden from view. The InvisiGUARD collars are made to fit Chrysler vehicles, Jeep vehicles, and Ford vehicles. These however, will not be manufactured any longer and is selling them until the stock is depleted. If you are like me, with a service van that is striving to be like a mobile Fort Knox, you would be wise to jump on them really quick.

#### Installation:

Now on to the nitty-gritty. *Photograph 1*, shows the first collar I am going to install. This is the "wrap around" collar that will fit the standard Saginaw columns. You can purchase these in either a tilt, or non-tilt version. In *photograph 2*, are the three different sizes of shields. When you order, you will be sent the correct sized shield for the make and model of the vehicle you will be installing it on.



8. The bracket.



9. The bracket installed.



11. The housing installed on the column.

Now let's go to the recipient of this security collar, a 1996 Chevy Lumina APV. In *photograph 3*, is the steering column. Note that it is equipped with a tilt column. See the tilt lever?

The very first step is to remove the "ears" from the ignition cylinder by prying it off. (See *photograph 4*.) It comes off pretty easy, so there's no need trying to be like Hercules and man-handle the cap off. (Or for you women, trying to be like Zena). (See *photograph 5*.) Take the shield and insert it between the dash and the underside of the steering column. (See *photograph 6*.) Once that's done, rotate the shield clockwise so that it is in the 9:00 o'clock position. (See *photograph 7*.)



10. Install the left housing.



12. The ignition.

Continued from page 18

USED ON	LOCK CYLINDER CAP	LOCK CYLINDER FACE	SPREADPAST CLUTCH
GENERAL MOTORS (except '81-'82)	Metal (Chrome) or Plastic (Black) with 2 Tabs		Black Disc 2 Prong
JEEP '81-'82	Metal (Chrome) or Plastic (Black) with 2 Tabs		Red Disc 3 Prong
GENERAL MOTORS (except '81-'82)	Metal (Chrome) with 1 Tab		Green Disc 4 Prong
CHRYSLER '81-'82	Metal (Chrome) with 1 Tab		Green Disc 4 Prong
JEEP '81-'82	Metal (Chrome) or Plastic (Black) with 1 Tab Play cut both sides		Blue Disc 4 Prong
JEEP '81-'82	Plastic (Black) with 2 Tabs		Orange Disc 4 Prong

**13. The cylinder face chart.**



**15. Install the right housing.**



**14. Install the alignment ring.**



**16. Rotated to the "lock" position.**

In *photograph 8*, is the bracket before being placed onto the underside of the tilt lever. The same bracket after being installed. (See *photograph 9*.) Once the bracket is in place your ready to install the left housing. (See *photograph 10*) This housing is installed onto the column. (See *photograph 11*.) Make sure that the half-round button of the bracket fits into the half-round cutout of the housing.

Now lets take a close look at the ignition. (See *photograph 12*.) The type of lock cylinder face is important, because you must match the proper clutch to it. And how do you do that? By looking at the chart that comes as part of the instruction sheet. (See *photograph 13*.) If you study the "clutch chart," you will see that for this type of lock cylinder face, you will need to use the red colored clutch. Now that you've figured

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that out, the next step is to install the alignment ring. (See *photograph 14*.)

Next install the right housing onto the column. (See *photograph 15*.) When doing so, make sure that the ears are rotated to the "lock" position, before you set the housing onto the steering column. (See *photograph 16*.)

Then take the two housings, join them together at the top, and place the cap over the "fin" of the two housings. Now take the two large alignment pins and place them into the large holes on the cap. (See *photograph 17*.) Now do the same with the bottom portion of the housing. (See *photograph 18*.) Once the housings are securely fastened make sure that:

**Continued on page 20**

Continued from page 18



17. Two large alignment pins.



20. Roll pins punched-in.



18. Secure the bottom of the housing.



21. The black decorative strips.



19. Hammer in the roll pins on the cap.



22. Grind away the cap.

1) The key works smoothly, turning-on the car, and sliding freely.

2) The ears do not turn freely without the key.

3) You shift through the gears while in the tilt up, and tilt down positions.

Once you've checked everything, go ahead and hammer in the roll pins on the cap and remove the large alignment pins with a small punch. (See *photograph 19.*) In *photograph 20*, you can see the alignment pins have been punched-out and the roll pins punched-in. (Boy, that sure looks tacky.) But there is something for that too. *Photograph 21*, shows the finished product with the black decorative strips that are placed over the holes to conceal them.

#### Removal:

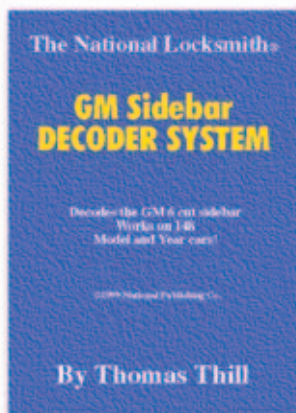
Now that you've seen how it was installed, let's look at the removal process.

In *photograph 22*, you will see that you need to grind away the cap behind the roll pins. Once that's been done, get a small punch and drive out the roll pins from the front. It's easy.

*Next month we will cover the installation of the InvisiGUARD. See you then.*

TRIL

## GM Sidebar Lock Decoder System



Tom Thill, the author of a new book, has invented an amazing new way to make keys for six cut GM Sidebar Locks.

CLICK HERE TO LEARN MORE



#TT - 1

## GM Steering Column Course



Comes complete with take-home test so you can become certified on GM steering column service! Authoritative training on every domestic GM column from 1967 to 1995.

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#GM - 2

# Automotive Locksmith Tools

## *Lockmaster's LKM1124 Mercedes Drill Kit*

Throw away the die grinder or moto-tool and cutting wheel. Lockmaster introduces the new LKM1124 Mercedes Drill kit for quickly and easily removing Mercedes single poke hole Ignition locks. Comprised of a plated hardened steel drill template and two specialty drill bits, the LKM1124 allows the locksmith to remove the single poke hole Mercedes ignition in just a few minutes.

Position the LKM1124 template onto the Mercedes ignition lock accurate drill alignment. Then use the specialty drill bits, designed for cutting safe-grade hard plate, and quickly drill an access hole to the lock's retainer.

Eliminate the tedious and messy task of using cutting wheels to grind away the lock's hardened face cap. The LKM1124 decreases the risk of damage to the lock's

bezel and the surrounding dash area, and dramatically reduces the amount of time it takes to remove the Mercedes ignition lock.

## *A-1 Killer Set*

A-1 Security Manufacturing Corp. has introduced a set of highly specialized tools for picking ignitions of GM, Chrysler and Ford 8-cut. The Domestic Killer



Automotive Pickset includes eight rocker picks, specialized tension tools, crimping tools for replacing Chrysler face caps, ignition release tools, jigs and bits. The set also includes six replacement face caps for Chrysler. When using these tools, it is possible to pick, remove and restore ignitions serviced. The set comes with cordura nylon carrying case.

## *Aable Ford 8 Kit*

Aable's 1996 and up, Ford 8 Ignition removal kit and sidebar breaker tool enables a locksmith to remove the

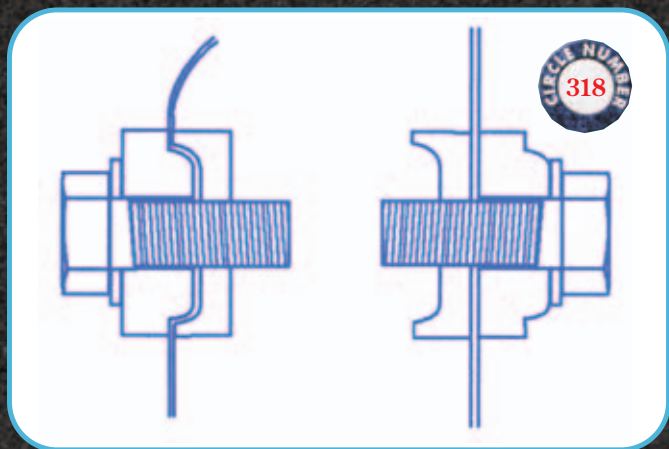


Continued from page 22

ignition in less than five minutes with no damage to the lock or housing. Fit the key and make the key to all the locks on the car. If the lock that has been damaged by the customer, the force tool can be used to turn the ignition to the on position in less than 60 seconds without damaging the wafers. All the tools in the kit are made of tool steel, designed to last a lifetime with no wires to bend or break.

### Lock Reforming Tool

The Model 700 Lock Reforming Tool from Lock Technology Inc. fits GM, Ford, Chrysler and most import cars. The tool instantly reforms damaged lock openings to the original contour of the auto.



### HPC's New Car Opening Tools

The Thru Car Clutch Tool (C-81) and the Super Thru Car Clutch Tool (CO-82) are great additions to HPC's unique line of clutch tools. These tools work on the same principal as HPC's Patented Horizontal



## Locksmith Dispatcher 2000

Controlled Service  
dispatching software  
specifically for  
the locksmith!

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Clutch and Vertical Clutch Tools (Patent No. 5,642,648). When the handles of the tool are separated, the hook at the end of the tool is pulled inward causing the tool to grip, bind or latch. What sets these two new tools apart is that they are designed for "In The Car Opening Methods".

The Thru Car Clutch Tool and Super Thru Car Clutch Tool are perfect for hooking an inside door handle, manipulating lock buttons and switches or to retrieve keys. Both of these tools have a flexible shaft and a retractable hook with a rubberized tip. The Super Thru Car Clutch Tool is 7 feet (2.1 meters) long and the Thru Car Clutch Tool is 5 feet (1.5 meters) long.

If you are looking for a fast, easy and safe way to open a car lock no further than HPC's new Thru Car Clutch Tools.

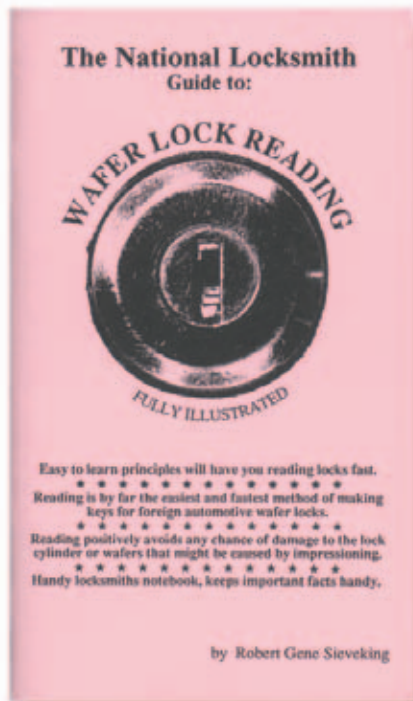
### *PRO-LOK Auto Lock Servicing Manuals*

Would you like to be able to service practically any foreign ignition, door, trick or glove box lock for a given manufacturer? How about being able to access basic information on code cutting, impressioning, rekeying and fitting keys? You can do all this and more with PRO-LOK'S Auto Lock Servicing manuals.

These manuals are the most comprehensive series of auto lock servicing books ever published. That means that you will be able to find the solution to your particular application quickly and easily, without having to sort through a number of different books. PRO-



LOK'S Malsset- 5 Volume Automotive Lock Servicing Manual Set is composed of more house experts; this set is the most comprehensive set of auto lock servicing manuals ever published. Each manual is specific to a manufacturer (Honda, Mazda, Nissan and Toyota). The 5th volume is an update for the Honda, Nissan and Toyota volumes. **TRL**



# Wafer Lock Reading

Easy to learn.  
No Codes needed.

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# 2001 Oldsmobile Aurora Ignition



by Michael Hyde & Allan Morgan

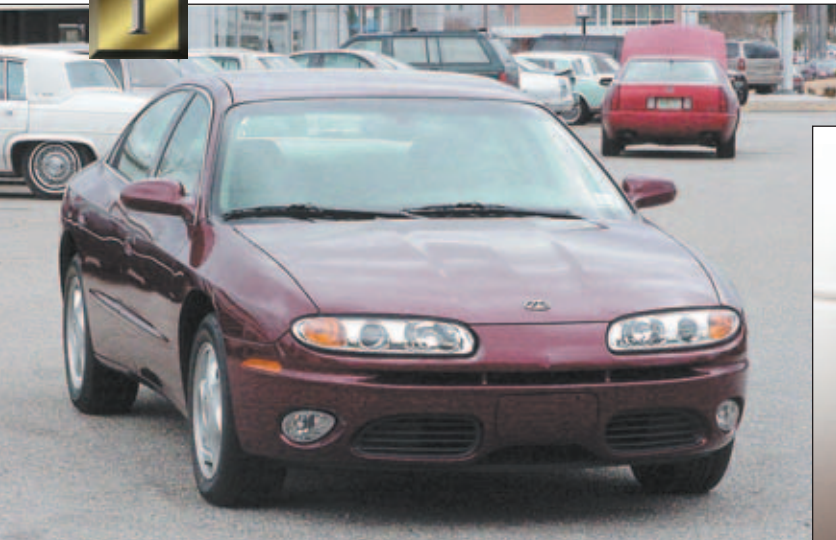


At first look, there seemed to be no problem removing the in-dash GM 10-Cut lock, but there is. This car is equipped with a transponder system and the ignition lock has an induction coil antenna and an illumination ring mounted on it. The hole in the dash is not big enough to remove the ignition lock cylinder with the electronics that are mounted on it. It is necessary to remove part of the dash just to get to the ignition lock out. Before you do anything, you must disconnect the battery first. Where is the battery? Guess what, it's under the back seat! You must remove the back seat to disconnect the battery. If you do not disconnect the battery, a "Theft System" fault will be detected by the cars computer and will have to be reset at the dealer.



Open the glove box door and look to your left, there is a dash panel bolt that must be removed.

1



There was not a 2000 model for the Aurora because it was being redesigned from the ground up for the 2001 model year. This car has locks made by the Japanese lock company called "ORTEC" and uses standard GM 10-cut space & depths. The tumblers used in the lock are different than those used in Strattec locks.



4



On the drivers side of the dash is the fuse panel. There is a little door that opens.



5

Unsnap the fuse panel door and remove it.



6

There is a dash panel bolt that must be removed.



7

There is a small storage compartment on the left side of the lower dash, flip it open and remove it.



8

There are snap fasteners that hold the top section of the lower dash panel in place. Unsnap the top section.



9

The bottom section of the lower dash panel is hinged, unhook it and remove the dash panel.



10

Remove the bolt for the upper dash panel that is located under the ignition lock.



13

Inside the vent cavity is another dash panel bolt that must be removed.



11

Remove the bolt for the upper dash panel that is on the left side under the driver's air vent.



14

There is a plastic trim cover over the instrument cover that has two plastic fasteners holding it in place. Gently push in on the center pin in the fasteners and then you can pull them out.



12



The left side of the dash panel has an air vent. The air vent must be unsnapped and removed. Unsnap it from the top and disconnect the wires connected to it.



15

Behind the plastic trim cover over the instrument cluster is a dash panel bolt that must be removed on the right side.



There is a plastic trim cover around the radio that must be removed. You can unsnap it from the dash starting at the top and working your way down. There is a vent that is also attached to the trim.



Remove the dash panel bolt on the right side of the temperature control unit.



Remove the other dash panel bolt on the upper right side of the Message Display unit, next to the vent opening.



Remove the plastic bezel around the ignition lock.

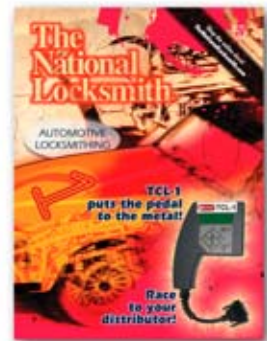


Now that all the dash panel bolts are removed, use two hands and gently, but firmly, pull the dash panel off. Be careful to disconnect any wiring attached to the dash panel.

*Believe it or not, at this point you are only half through. Next month we will conclude this huge undertaking just to remove an ignition lock.*

TNL

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# Safe Products

## A & B Viking Stainless

A & B Safe Corporation introduces a first in safe design, "The Viking Stainless". This is the industry's first innovation in fire and burglary protection in many years. Quality construction and state of the art composite barrier protection are used to produce a safe that is strong, functional and also attractive.



The stainless steel construction allows for easy maintenance and easy clean ups, with no rust, allowing for a sterile environment and a safe that will never look old.

Each safe is equipped with a primary locking device, combination lock or electronic lock. Provision for a second locking device is provided as an option. This lock could be an addition combination lock, key lock or most any locking device of your choice.

The Viking Stainless comes in nine sizes, two of which have depository draws for deposit of currency or envelopes while the safe is locked.

## Gardall New Product Lines

Gardall Safe Corporation introduced three new product lines. All three of the products were developed with the intention of addressing price point issues in their specific safe categories.

The first safe carries a 1 hour fire

label with a center bolt down hole and is sometimes referred to as a "Microwave" safe. It is packaged in UPS packaging for ease of shipment.

The second product line consisted of three 2 hour Burglary/Fire safes (model FB1212 pictured). All models have a thick 2" door and 3" body, 3 spoke chrome plated handle, center bolt down hole, 2 hour fire label, independent glass relocking system and 1-1/2" chrome plated bolts.

The final new product line introduced was Undercounter safes and Gardall showed two new models. The model DS128-C is a vertical drop safe with a 1/2" door and 1/4" body. It has an anti-fish saw tooth baffle and 4 holes to anchor the safe when mounted.



For more information or literature contact a Gardall distributor or call Gardall at: 800-722-7233.

## Perma-Vault Cash Registers

Efficient cash drop boxes are the key to a successful cash management system, according to executives at Perma-Vault Safe Company, who remind locksmiths and retail merchants that a cash register is not a safe.

Perma-Vault manufactures a broad line of cash management safes, including drop boxes, depository safes, in-room safes, wall safes and more. The company also has resources to design and custom build safes for particular customer needs.

Benefits to cash drop boxes include limiting the amount of cash exposed to robbery, minimizing the opportunity for employee theft, as well

as demonstrating concern for the welfare and safety, and preventing the snatch and grab which could happen with an open cash drawer.



Perma-Vault's full line catalog can be viewed at [www.Perma-Vault.com](http://www.Perma-Vault.com).

## INKAS Xcalibur

A flagship of INKAS' safe line-up, an Xcalibur TL30 features the UL Group 2M manipulation resistant combination lock with spy proof dial, 1-1/2" diameter steel bolts (3 way boltwork on 3 2 1 9 + ) , reinforced bolt chambers, sophisticated glass relocking mechanism, heavy plate steel frame



and high quality adjustable hinges. It is constructed of the toughest materials, with its 3-1/2" thick body and massive door enclosing proprietary anti-penetration grids, hardened steel and sophisticated glass relocking system.

Put it all together with competitive pricing and you have a winning combination!

The SuperTuff (ST) is designed for business and homes needing more burglary protection without the intimidating size and cost of most high security safes. The ST-series features 1-1/2" diameter steel bolts, massive independent relocking device, heavy duty hinges, UL listed combination lock, large hard plate protecting the lock and mechanism, full composite construction with the hardest barrier material.

For more information call: 1-866-666-0909 or visit [www.inkassafes.com](http://www.inkassafes.com)



# Quick Entry

## UPDATE

by  
Steve  
Young



### 2001 OLDSMOBILE AURORA

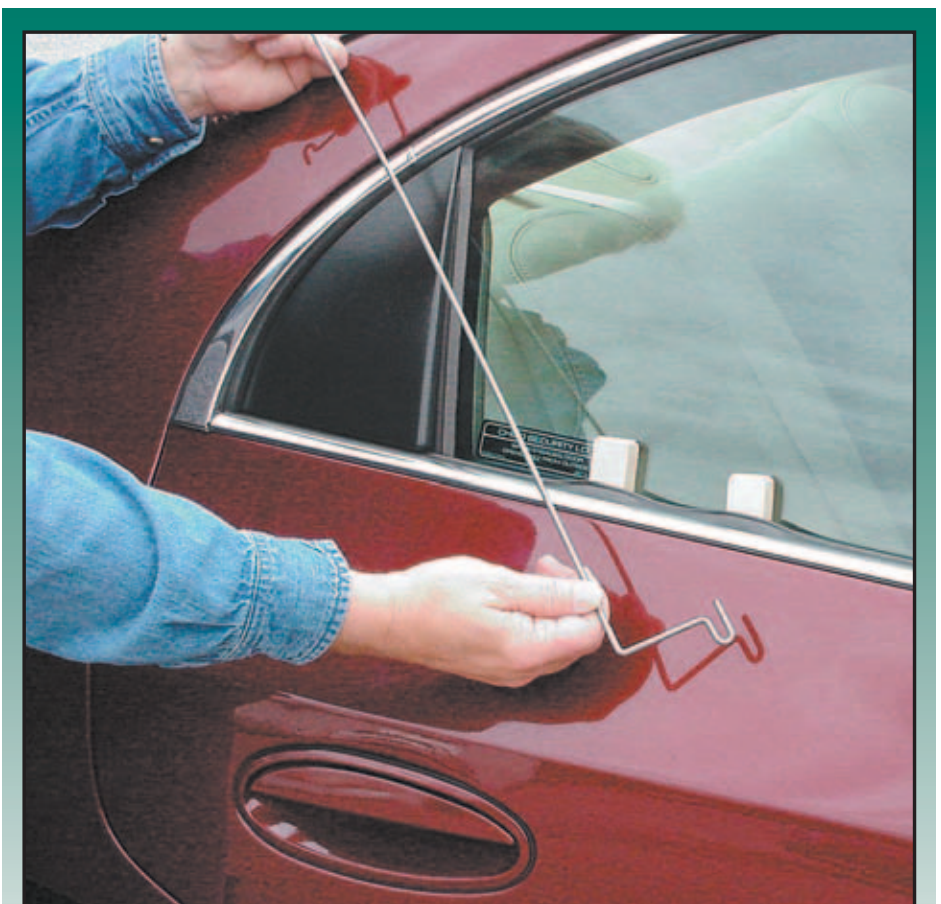
Late last year, GM decided that it made good business sense to drop the Oldsmobile line (one of the oldest and most prestigious names in automotive history) like an old shoe. They did this with little ceremony and virtually no warning to the Oldsmobile dealer network. The owner of my local Oldsmobile dealership heard the news on his car radio while on his way to work. While there has been rumors circulating for years, when the end came, it came very swiftly. 2002 will be the last year of production for the entire Oldsmobile line, and dealers across the country are scrambling to pick up new lines to replace the fallen Oldsmobile. My local dealership has taken on the Saab line, which is also owned by GM, as a replacement, but I suspect that they won't be selling many Saabs to their faithful Oldsmobile buyers.

One of the casualties in this debacle is the 2001 Oldsmobile Aurora. This vehicle was introduced with much fanfare last summer and has consistently won awards and high praise from many in the auto industry. The 2001 Aurora was much more than a simple redesign of the old Aurora that was introduced in 1995; it was a completely new car. (See *photograph 1.*) I for one will be sad to see it go.

To unlock the Aurora, begin by wedging open the weather-stripping at the base of the window just forward of the outside door handle on the rear door. (See *photograph 2.*) Next, insert the short end of the Tech-Train 1008 tool into the door. (See *illustration A.*) As soon as the tip of the tool is below the level of the outside door handle,



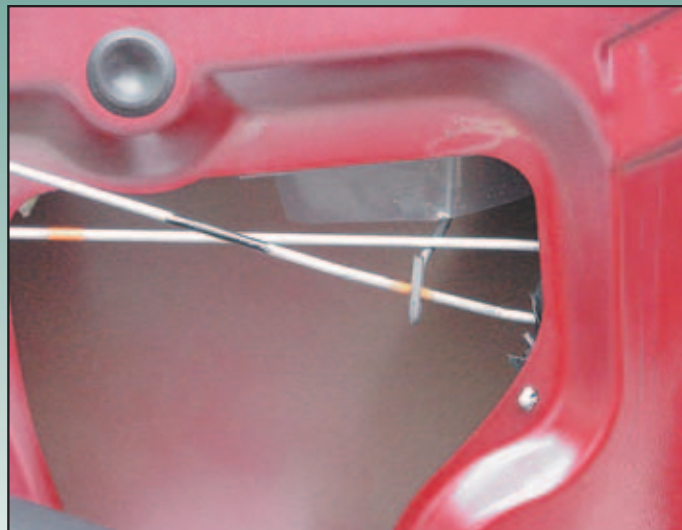
1. The 2001 Oldsmobile Aurora.



2. The short end of the TT-1008 tool is inserted just forward of the outside door handle.



**3. Once the tool is on the linkage rod, lever the linkage toward the front of the car to unlock the door.**



**4. The inside lock control linkage is the lower of the two linkage rods inside the door.**

<b>Quick Reference Guide</b>	
<b>Vehicle:</b> 2001 Oldsmobile Aurora	<b>Bitting:</b> Ignition 1 - 9, doors 5 - 9, trunk 6 - 9, glove compartment 7 - 10
<b>Direction of Turn (passenger side):</b> Counter Clockwise	<b>Security System:</b> PassLock I (MRD)
<b>Tool:</b> TT-1008 (short end)	<b>Lock Manufacturer:</b> Strattec
<b>Lock System:</b> 10-Cut GM, Sidebar Ignition and Plate-Tumbler (wafer) Style Door Locks	<b>Code Series:</b> S000A - S711K
	<b>Key Blank:</b> Strattec: 322739; Ilco: P1112; Jet: B93, B93-P



rotate it so that the tip of the tool is pointed toward the inside of the vehicle. At this point, the hooked end of the tool should be just below the lower horizontal linkage rod, which is the inside lock control linkage.

An inspection light can be used to help locate the linkage rod if you wish, but it is not absolutely necessary. The short end of the TT-1008 tool is just the right length to hook onto the linkage rod automatically as you pull the tool upward from below the linkage. If you are working without an inspection light and have trouble locating the linkage, watch the inside lock operator for movement as you probe for the linkage rod.

Once the tool is in position, pull up on the tool slowly until you feel it contact and hook onto the linkage rod.

When you have made contact with the linkage rod, twist the tool to bind the linkage and then lever the linkage rod forward to unlock the door. (See *photograph 3.*)

Inside the door, the two linkage rods run horizontally from the latch to the inside door handle assembly. (See *photograph 4.*) The easiest point to attack the linkage is just slightly forward of the outside door handle. The lower of the two linkage rods is the inside lock control linkage, which will unlock the door when moved toward the front of the vehicle. This rod crosses over the handle linkage rod at a point several inches forward of the outside door handle. Attacking the linkage too far forward will result in your tool hooking onto the handle linkage instead of the lock control linkage.

As you can see in *photograph 4*, there is a sheet of clear plastic that hangs inside the door between the linkage rods and the outer skin of the door. While this sheet of plastic does not really act as a shield for the linkage, it can get in your way. If your grip on the linkage rod feels "mushy" you may have trapped the plastic sheet between your tool and the linkage rod. Repositioning the tool and beginning again should free up the plastic sheet and allow you to unlock the vehicle without damaging the plastic moisture barrier.

The doors on the Aurora have a substantial frame around the window glass. This enables the Jiffy-Jak Vehicle Entry System to also unlock the Aurora quickly and easily through either the front or rear doors. **TNL**

# Non-Intrusive CAR OPENING TECHNIQUES



by  
**Sal Dulcamaro,**  
**CML**

It seems that each year the various car opening tool kits add at least two or three new tools with new twists and bends. I can't remember how many years have passed since Pat Sullivan introduced his use of wire tools for gaining access to the lock linkages within the car door panels. Pat's All Lock car opening seminar was the first time I was exposed to the technique. The original wire tools were twice as thick as the current generation of tools, and back then you could open a gap between the glass and frame that was big enough to fit your hand into.

Fit and finish of current generation cars is a lot tighter, and the tools have become thinner to adapt. I still get a bit queasy at times about the possibility of the sheet metal of the car door not returning to its original shape, and in recent times I have been thinking more about using non-intrusive car opening techniques. The potential for permanent flexing of the sheet metal not withstanding, there are sometimes concerns about prior opening attempts that may have left damaged or disconnected linkages and the possible blame or liability involved.

If you pick the door lock, you can't be held accountable for disconnected door linkages. Likewise if you impression a key. We know that the biting lists of many auto code series number into the thousands. That number can be reduced to hundreds

of "try-out" keys by using half depths, because of loose auto lock tolerances. *Photograph 1*, shows a box of try-out keys for Ford double-sided pin tumbler locks that use the secondary keyway. From a full biting list of pin tumbler codes, that number just under 2000, the number of cut key surfaces totals less than 200. Among the disadvantages of tryout keys is the amount of time taken to try all the various key patterns. The other big disadvantage is the possible appearance of looking less than professional. This technique is one that you may prefer to use out of view of the customer. It looks like you are just trying a bunch of keys (which you are), and some customers will think that it doesn't take any skill to do that.

## PROFESSIONAL APPEARANCE & SPEED

*Photograph 2*, shows a couple sets of automotive disc tumbler decoder keys known as The Determinator. Their purpose is to fit keys to automotive disc tumbler locks. The process used is shown in *photograph 3*. A vertical cut toward the tip end of the key is set to a specific height that

when the key is withdrawn from the keyway, traps tumblers of certain sizes. In a four depth system, the two deepest depths (3 and 4) would trap, while the two shallowest depths (1 and 2) would not. Borrowing from the concept of tryout keys, every position that didn't trap would be labeled "A" or a 1-1/2 depth that would pass for both 1 and 2. The positions that trap would be labeled "B" or a 3-1/2 depth that would pass for both 3 and 4. Cutting a key with the "A" and "B" depths should cause the lock to operate, although not necessarily as smoothly as a properly cut key.

The next step would be to look for impression marks. If a tumbler position had no impression marks, the presumption would be that the true depth should have been shallower. The "A" depth would become 1 and the "B" depth 3. An impression mark would presume the next depth deeper. In that case, the "A" depth would become 2 and the "B" depth 4. A second key would be cut to full depths and should be the correct key for the vehicle. The process would become a bit more complicated if other tumbler positions had to be determined from other locks on the vehicle. In either case, the process is relatively quick and effective.



1. A box of try-out keys.



2. Decoder keys known as The Determinator.



**The Determinator™** Now at A

The DETERMINATOR™ works by trapping larger tumblers and by passing smaller ones. A number 4 cut in a key has a tumbler that is much larger than a number 1 cut. The DETERMINATOR™ is designed to trap the larger tumblers in the specially designed cut tip on the key. A small length of spring steel with a sloped end is inserted in the cut out portion of the DETERMINATOR™ to release any trapped tumbler.

**\$47.00 ea**

**A.** Shown at the right is a lock with various sized tumblers and a DETERMINATOR™. As you can see the DETERMINATOR™ will trap the tumblers with a 3 or 4 depth, but will allow the tumblers with a 1 or 2 depth to pass.

Depth of Tumbler

**B.** When the DETERMINATOR™ traps a tumbler, look at the space number closest to the face of the lock. Here you can see space 7 is trapped, you know it is a 3 or 4 depth.

Depth of Tumbler

**C.** Use the release tool to raise the trapped tumbler and pull the DETERMINATOR™ out until the next number is visible.

Depth of Tumbler

Record the depths and spaces and you will be ready to cut a try-out key. The try-out key will be cut using 1/2 cuts and then by using your impressing skills you will quickly determine the correct cuts to operate the lock.

**Complete with Chart Pad and Instructions!**

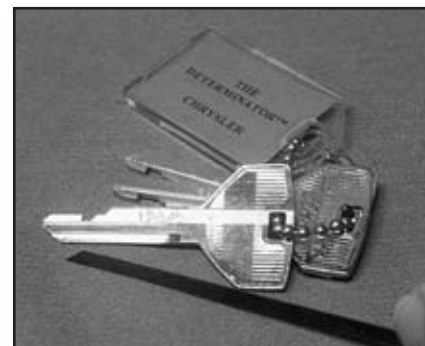
ORDER #	DESCRIPTION
DET-BMW1	BMW X144
DET-CHR1	Chrysler Y154/Y155/Y15
DET-DAE1	Daejeon
DET-FOR1	Ford F60 10 cut door
DET-FOR2	Ford F75 8 cut
DET-FOR3	Lincoln LS
DET-FOR4	Ford Focus
DET-FOR5	Ford Focus
DET-GM1	GM 10 cut
DET-GM2	Alpha Tac 848
DET-GM3	Cadillac
DET-HON1	Honda X181/X183
DET-HON2	Honda X195/X214
DET-HYU1	Hyundai X216/X236
DET-HYU2	Hyundai X235
DET-HYU3	Hyundai X232
DET-HYU4	Hyundai X160/X196
DET-JAP1	Japanese X176/X184/X18
DET-JAP2	Japanese X180/X190/X22
DET-KIA1	Kia X230/X233
DET-MAZ1	Mazda X131/X179/X200
DET-MAZ2	Mazda X272
DET-MIT1	Mitsubishi X263
DET-MIT2	Mitsubishi X54/X121
DET-NIS1	Nissan X123/X210
DET-NIS2	Nissan X227
DET-SAT1	Saturn B96
DET-SAT2	Saturn B96
DET-TOY1	Toyota X151/X212
DET-TOY2	Toyota X217
DET-TOY3	Toyota X174
DET-TOY4	Toyota TR08/X137
DET-VW1	VW X88/X200

3. The Determinator process.

### A VARIATION - JUST FOR OPENING

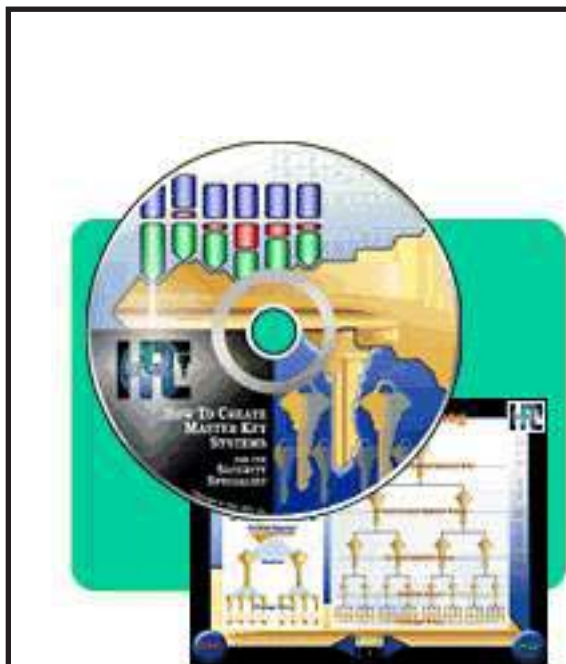
For a while now, I've theorized about a simplified variation of the standard key fitting technique that could be used just as an opening procedure. By my reckoning, I figured it would be much faster since I only

had to get the door lock to operate to open the vehicle. Presuming that the customer had a key locked inside the car, the additional key fitting steps would not have to follow. To be competitive with the more intrusive car opening (bypass) tools, my technique would have to take no more than a few minutes. That was my challenge.



4. Determinator keys for Chrysler.

My first opening attempt using The Determinator tools was on a 1992 Chrysler vehicle. You will need to know how many and where the disc tumblers are positioned to use this process. It wouldn't hurt to have a compact reference guide like Michael Hyde's "AutoSmart" or Bob Sieveking's "Fast Facts" to identify the tumbler information for the make model and year for which you are dealing. A set of The Determinator keys for Chrysler vehicles is shown in *photograph 4*. The trap height for tumblers is the same for all the decoder keys in this set, but there are variations based on number of tumblers and tumbler positions. The door locks I had to deal with used a



## How To Create Master Key Systems

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Y154 key and had double throw disc tumblers in positions 1 to 5 (bow to tip).

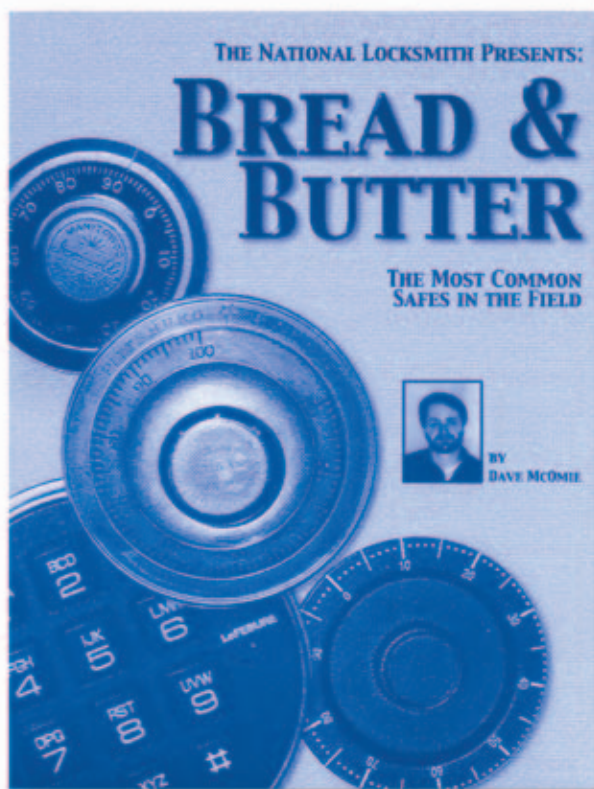
Before I even started to decode any locks, I made a specially prepared base key from which I could create whatever variation pattern that would be revealed by The Determinator tool. *Photograph 5*, shows key cuts in positions 2 and 4 on the top half of the key and positions 1, 3 and 5 on the bottom half. Since I would only be concerned with two depths (A = 1-1/2, B = 3-1/2), I set all the cut depths to 1-1/2. After decoding, I would either leave the depth as is, or cut it deeper into a 3-1/2 depth.

*Photograph 6*, shows The Determinator in the lock with the trapping key notch pointing downward. I inserted the tool as far as it would go into the lock and pulled outward until the key stopped. In this case, the key didn't pull out at all. Although not easily identifiable in the photograph, the #5 is lined up with the face of the door lock and the key is trapped. That means that cut position #5 should be a "B" depth. The spring steel slide tool is used in *photograph 7*, to dislodge the trapped tumbler and allow The Determinator to be pulled out even further. It trapped

immediately again on the next tumbler in position #3. That would also be a "B" depth. After using the slide tool to dislodge that tumbler, I pulled outward again. This time nothing stopped it, meaning that position #1 has an "A" depth.

Although not shown, I reversed the tool to decode the tumblers in positions 2 and 4. After inserting The Determinator tool, I pulled outward, waiting for a tumbler to trap the tool. No tumblers trapped on the top side, meaning that positions 2 and 4 had to be "A" depths. Since only cut positions 3 and 5 were "B" depths, the base key was unmodified except for those positions being filed and converted to 3-1/2 depth cuts in *photograph 8*. I made sure that I inserted the cut key with the odd/even cut positions matched to the odd/even tumbler positions. *Photograph 9*, shows the results with the key turning to unlock the car.

## Bread & Butter

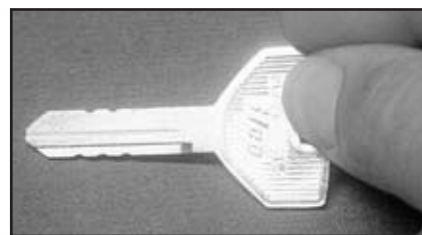


Now here is one amazing value!

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#BB - 01



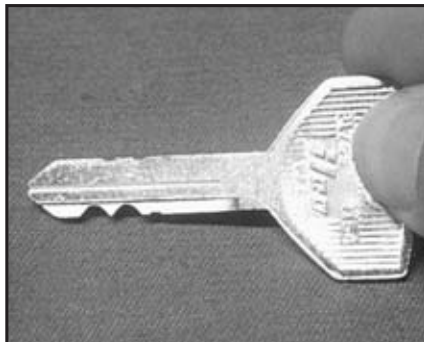
5. Key cuts in positions 2 and 4.



6. The trapping key notch pointing downward.



7. The spring steel slide tool dislodges the trapped tumbler.



**8. Positions filed and converted to 3-? depth cuts.**



**9. The key turning to unlock the car.**

## TEST NUMBER TWO

The first test went smoothly, but the car was almost 10-years old and the additional accumulated wear might have made the lock more forgiving of an inaccurate key. My next test was on a 1999 GM vehicle. *Photograph 10*, shows a set of The Determinator keys for 10-cut GM. This particular vehicle, like the Chrysler, had only five tumblers in the door locks. The tumblers were located in positions 6 to 10 (bow to tip). The GM locks also had only four tumbler sizes. The breakdown was the same: A = 1-1/2 (for 1 or 2); B = 3-1/2 (for 3 or 4).

A base key was similarly prepared in *photograph 11*. "A" depth cuts were pre-positioned in 6, 8 and 10 on top. They were cut similarly in positions 7 and 9 on the bottom side of the key. *Photograph 12*, shows the key trapped on tumbler position #8, and position #6 in *photograph 13*. From the opposite side, *photograph 14* shows the key is trapped on the tumbler in position #9, and position #7 in *photograph 15*. All the trapped positions indicated "B" depths, and they were filed into the key as shown in *photograph 16*. Again, with the

odd/even pattern of cuts and tumblers matched, the key was inserted into the door lock and turned in *photograph 17*.

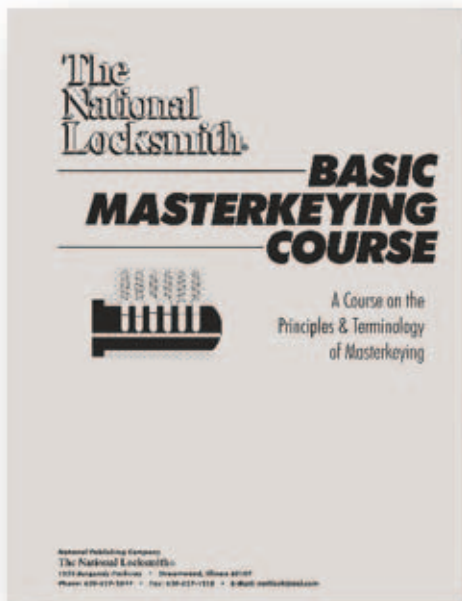
For this newer vehicle, the key turned all right, but it was noticeably tighter. When I removed the key, I saw a fairly strong impression mark in tumbler cut position #10. If my intention was to fit a key, I would have used this information to determine that the tumbler was likely a #2 size rather than a #1 size. Since my only intention



**10. The Determinator tools for 10-cut GM.**



**11. A base key prepared.**



# Basic Masterkeying Course

13 Lesson  
 450 page course

The Basic Masterkeying course is designed for the locksmith who wishes to become proficient in Basic Masterkeying.

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**12. The key trapped on tumbler position #8.**



**14. The key is trapped on the tumbler in position #9.**

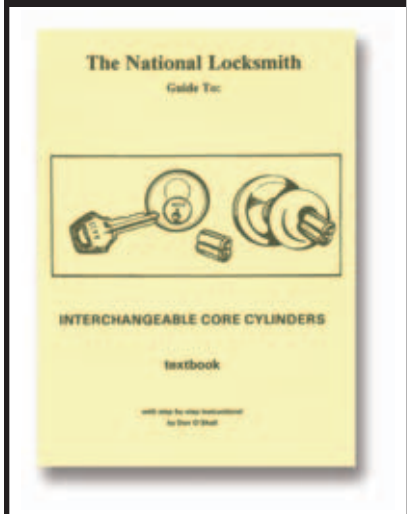


**13. The key trapped on tumbler position #6.**



**15. The key is trapped on the tumbler in position #7.**

## Interchangeable Core Cylinders



**CLICK HERE TO LEARN MORE**



#ICB - 1



**16. All the trapped positions indicated "B" depths.**



**17. The GM locked turned.**

key, only two more tumbler positions had to be determined to make a complete key. For the GM vehicle, five more tumbler positions had to be decoded. I don't intend to go into more detail for the key fitting steps, since this article is about using The Determinator tools for car opening.

I will say that there is often a substantial difference in time and procedure for different versions of The Determinator when used as originally intended to decode locks and fit complete keys. It's because you will often need information from other locks on the car to make a complete operating key, and some cars will make you work a bit harder to gain that additional information. My altered use of the tool as a car opening procedure makes the comparative time and procedure more similar from car brand to brand. That happens because once we get the door lock to turn, the job is finished. Not counting the time to prepare the key blanks (in advance), the time taken to decode and hand file the "B" depths took about two minutes for the Chrysler vehicle and about four minutes for the GM vehicle. The main consideration was that I had more spots to file on the GM key.

Unfortunately, the automotive hand key punches (such as Curtis Clipper and A-1 Pak-A-Punch) aren't set up to cut half depths. If they were I wouldn't have had to prepare the "A" depths on my code machine in advance, and I wouldn't have had to hand file the "B" depths. Even with the extra steps and time, I found this car opening method to be quite competitive with the "in the door panel" wire type bypass tools, without any risk of linkage damage or disconnect. I obviously didn't try all the different versions of The Determinator made for other brands of domestic and import cars, but I have no reason to believe that it wouldn't be effective in those circumstances as well.

*For more information on The Determinator tools, call: 800/561-0443. Michael Hyde's "AutoSmart" is available from The National Locksmith, or find it online at [www.thenationallocksmith.com](http://www.thenationallocksmith.com). Bob Sieveking's "Fast Facts" can be found at: [www.sievekingprodco.com](http://www.sievekingprodco.com). Look for any updates or corrections of my articles at my web page, <http://home.earthlink.net/~lockwriter> Look under the link "Tech Article Addendum." Circle 322 on Rapid Reply.*



# LAB

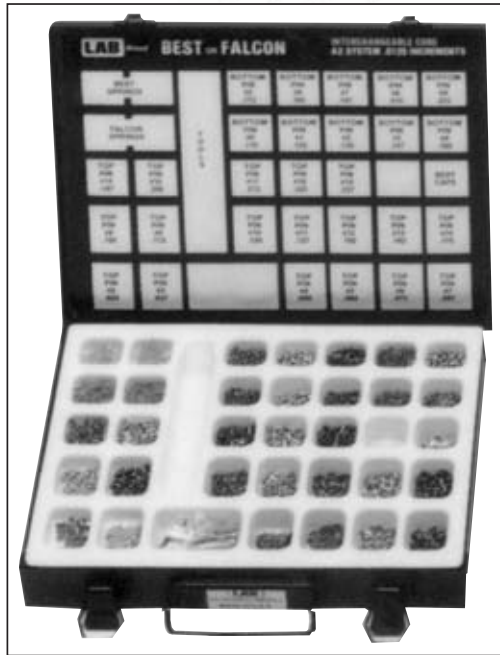
## New Pinning Kits

### LAB's New Pinning Kits

If there's one thing a locksmith needs in their toolbox, it's plenty of parts to service either Schlage or Kwikset products. LAB is making part of that job easier by introducing a new pinning kit, which combines both Schlage and Kwikset pins. According to LAB, the new kit contains only the specific sizes required to service the original manufacturer's cylinders. Each kit is constructed of steel with a hardcoat finish and seal-tight covers.

For Schlage, the kit includes 10 nickel silver bottom pins, eight brass master pins, three brass top pins and cylinder springs. For Kwikset, the kit includes six brass bottom pins, two brass top pins, six brass master pins and cylinder springs.

In addition to the actual kits, LAB has put together refill packs for Schlage and Kwikset. The Schlage refill pack contains eight brass master pins, sizes 2-9, three brass driver pins 1, 2, 3; 10 nickel silver bottom pins sizes 0-9; 100 pins per size. The Kwikset refill pack contains six brass master pins, two brass driver pins, six brass bottom pins, 100 pins per size.



The interchangeable core refill pack for Schlage and Kwikset with color coded brass pins includes 18 top master pins, sizes 2-19; 10 bottom pins sizes 2-19 with 100 pins per size.

LAB has also packaged .003 and .005 pins into refill packs. The .003 pack contains 124 packs of LAB tumbler pins with 50 pins per size; tops of .010-200 and bottoms of .156 to 360. The .005 kit contains 102 packs of LAB tumbler pins with 50 pins per size; tops .010-300 and bottoms .150-360.

Another change at LAB is the design of The Wedge pinning kits. The kits now have numbers in the pockets under the clear plastic tray, as well as on the case cover.

The company is in the process of expanding its Bristol, Connecticut

manufacturing facility. Another 7,000 square feet of manufacturing capacity is being constructed on the back of the existing building. LAB anticipates production of its pins, kits and various locksmith tools in the new area will begin this fall.

### Pin Refill Packs

LAB has three new pin kit refill packs for interchangeable cores, Schlage and Kwikset. The I/C pack, which is color coded in brass, has 18 top master pins sizes 12-19, 10 bottom pins sizes 2-19. The Schlage pack has 8 brass master pins sizes 2-9; 3 brass driver pins 1,2,3; and 10 nickel silver bottom pins sizes 0-9. The Kwikset pack has 6 brass master pins, 2 brass driver pins and 6 brass bottom pins.



The three new refill packs have 100 pins per size.

For more information on LAB Security products call: 800-243-8242; Fax: (860) 583-7838; E-Mail: [labpins@snet.net](mailto:labpins@snet.net); Web: [www.lab-lockpins.com](http://www.lab-lockpins.com).



by  
Richard  
Allen  
Dickey

# Locks, Safes, and Security.

**The little black  
book of locks,  
safes, and  
security that  
won't fit in  
your pocket**

Marc Weber Tobias is one of those rare people that can do just about anything. He has more credentials than you can shake a stick at and is known around the world by corporations and governments as a consultant and technical fraud investigator.

Marc Weber Tobias has authored four law enforcement textbooks dealing with criminal law, police communications, and security. Tobias received a Bachelor's Degree in 1970 from the University of Nebraska-Omaha, and a Juris Doctor Degree from Creighton Law School in 1973. He is an attorney in Sioux Falls, South Dakota, with Investigative Law Offices, P.C.

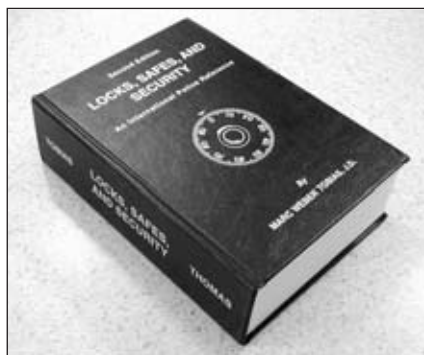
As part of his practice, he routinely conducts technical fraud investigations and consults with corporations and government agencies throughout the world regarding the bypass of locks, analysis of design defects, and security liability issues.

He has been granted two United States patents and several foreign derivative patents for bypass tools relating to locks. He is a member of the Associated Locksmiths of America (ALOA), Safe and Vault Technicians Association (SAVTA), American Society for Industrial Security (ASIS), American Academy of Forensic Sciences (AAFS), International Association for Identification (IAI), American Polygraph Association (APA), and American Association of Police Polygraphers (AAPP).

Tobias is also a technical advisor to

the Association of Firearms and Tool Marks Examiners (AITE). Tobias has provided technical support and investigative services involving surveillance, covert entry, interrogation, polygraph, and crime scene documentation to many law enforcement agencies throughout the world.

His latest book "Locks, Safes, and Security," published on December 27th 2000, is a 1400 page work of art. (See photograph 1.) It covers every conceivable aspect of physical security. The book has well over a million words and around 550 photographs and illustrations.



**1. Locks, Safes and Security is a 1400 page work of art that covers every conceivable aspect of physical security.**

It would be unfair to simply say that this book is great without mentioning what is

covered. Below is a list of how the book is laid out and what type of information is included.

To start with, the book is divided into four parts. They are:

1. Fundamentals of locks, safes and security.
2. Methods of entry.
3. Locks, safes, vaults and secure areas.
4. Security.

In Part I, Fundamentals of locks, safes and security, you start with:

#### **A. General introduction to locks and keys:**

- The Lock: Four Thousand Years of Technology
- The Last Twenty-five Years
- Definitions of Terms
- Tools and Supplies
- Materials and Processes

#### **B. Keys and Keying Systems:**

- The Development of Keys
- Processes and Materials for Producing Blank Keys.
- Methods of Producing Cut Keys
- Producing Keys for Specific Locks
- High-Security Locks and Keys
- Keying Systems
- Basic Lock Configurations: Hardware

#### **C. Introduction to Basic Locking Mechanisms:**

- The Warded Lock
- Lever Tumbler Locks
- Wafer Locks
- Pin Tumbler Locks

#### **D. Specialized Locking Systems and Applications:**

- Traditional Mechanical Locking Systems
- Electromechanical Locks
- Magnetic Locks
- Wireless Exchange of Coded Information
- Intelligent Keys and Locks
- Programmable Locks and Keys
- Specialized Industry Applications

#### **Part II: METHODS OF ENTRY**

##### **A. Investigations:**

- Investigations and Evidence Involving Locks and Keys
- Forensic Examination: Specifications, Operation, and Security
- Forensic Examination: Tool Marks and Trace Evidence
- Forensic Examination: Keys

##### **B. General Introduction to Bypass: Non-destructive Silent Entry:**

- General Introduction to Bypass
- Picking
- Impressioning
- The Decoding of Locks: Theory, Procedures, and Technologies

##### **C. Destructive Entry:**

- Destructive Entry: Tools and Techniques

**Part III: LOCKS, SAFES, VAULTS, AND SECURE AREAS:**

- The Origins, Development, and Design of Safes, Vaults, and Strong Rooms
- Combinations Locks
- Destructive Entry of Safes: Tools and Techniques
- Non-destructive Methods of Entry

**Part IV: SECURITY:**

- Standards and Testing
- Security: Analysis and Reduction of Risk
- Security: Physical and Protective Measures
- Alarm Systems

This is a lot of material in one place. You may think that some of the above topics are of little or no use to the locksmith. I would have to disagree.

Forensic investigation, for example, is something that most of us will never deal with. However, to know that it is possible and to what extent results can be expected, may be of great value to one of your customers some day. If you have a customer in need and you let that customer know that these things can be done, they won't forget you.

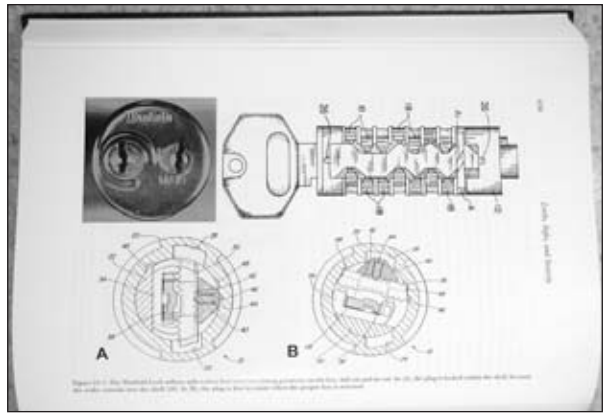
As mentioned earlier, there are approximately 550 illustrations and photos in the book. *Photograph 2*, is an example of the photographs in the book. Here we have an Ikon conventional pin tumbler key with a microprocessor in the bow, along with a Medeco system and two Smart Keys.



**2. This is an example of some of the photographs in the book.**

*Photograph 3*, shows an exploded drawing of a Winfield hotel lock and a picture of the face of the lock. This is a 10 wafer lock that can be instantly rekeyed by using a control key. The Winfield Lock Company received three patents (4069694, 4966021, 4376382) for this new lock in 1978.

An ABA Axial Lock is shown in a detailed drawing. (See *photograph 4.*) This is an imported



**3. Here is an exploded drawing of a Winfield hotel lock and a picture of the face of the lock.**

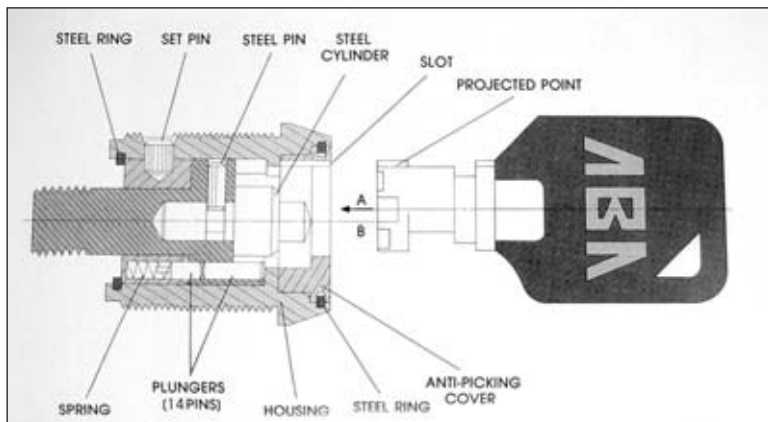
# 15 Minute Safe Opening



This book deals exclusively with round head lift out doors. Shows five ways to open a Major; three ways to find the Dog Pin on a Major; four ways to open a Star; four ways to open a LaGard style round head.

**CLICK HERE TO LEARN MORE**





**4. An ABA Axial lock is shown in a detailed drawing.**

Taiwan lock that actually has a high degree of resistance to picking due to a keyway plug that pivots after the key is inserted.

Chapter 30 on impressing is 64 pages long. It could be a book in itself. It covers everything from basic impressing, to the use of composite blanks, foil impressing, plasticine systems and a new conductive material impressing system which Tobias received a patent for in 1994.

*Photograph 5*, shows a before and after of the Martin composite blank impressing system. The Martin

system uses a lead replacement for the biting area of the blank. This is supposed to be one of the easiest methods of impressing because of the ease of reading the marks. The book not only covers numerous methods of impressing, but goes into detail about the steps involved for each method.

Some of the photographs in the book are a little dark, however they are all very usable. Overall I can't say enough good things about this mass of reference material.

There is one more really neat feature about the book. Because there is so much information, most things will show up in more than one place. An index is the usual answer to this problem and the book has a good one that is 85 pages long. However, to make things really easy, Tobias has set up a search function on the security.org web site.

There are two ways to do the search. An index search and a text search. An index search will return a list of hits. You can scroll through the list and click the one that best fits your description. It will tell you the chapter, section and page number along with approximately 300 words of text as well as illustrations and photos as they appear in the book.

A text search will search the text of the book and/or the database to find things that match your request. I typed in "axial" and I got 179 hits. The ones that are in the book are identified, and display the chapter and section. The word "wafer" returned 267 hits. Like the index search, the text search will give you around 300 words of information as well as photographs and drawings.

I have tried to give you an idea of the depth of information in this book

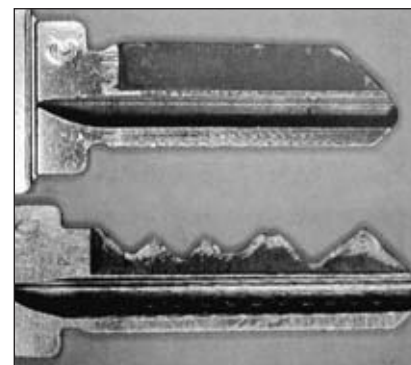
by listing the contents and throwing a few of the drawings and photographs your direction. There are so many different areas to cover that there is no possible way that I can do the book justice in only a few pages.

The cost for Locks, Safes and Security is \$199.95 and is only available in hard cover. All of this information will be available on CD-Rom sometime during the fourth quarter of this year. However, to get the CD-Rom, you have to buy the book. By the way, this monster weighs in at 7 pounds 14 ounces. About the same as a healthy baby. There is one advantage to the book over the baby. The book doesn't drool and when you bring it home it will never cost you another dime!

Locks, Safes and Security is available from two different sources. The first choice would be through one of four distributors. They include:

- MBA USA (Mark Bates Associates)
- HPC Inc.
- Lockmasters
- MSC located in Hamburg Germany

The second source is the Internet. By going to [www.security.org](http://www.security.org), you will be able to place an order on line.



**5. Here we have a before and after of the Martin composite blank impressing system.**

If you would like to contact the author, there are several ways you can do it.

Marc Weber Tobias welcomes feedback from readers. His e-mail address is [mwtobias@security.org](mailto:mwtobias@security.org) He may be contacted toll free utilizing Internet telephony or video conferencing through <http://www.security.org>. What would we do without technology!

I hope your day was as good as mine. See you next month.



## Safe Opening Articles

**CLICK HERE TO LEARN MORE**



# BEGINNER'S CORNER

## The HIT-111 Drill Guide.

by  
**Bill  
DeForrest**

The HIT-111 drill guide from Major Manufacturing, is a multi-purpose jig used to retrofit wood and metal doors to accept a number of different manufacturers lever handle locks.

While drilling through-bolt holes used for lever handle locks can be accomplished without a drill guide, the use of one will assure perfect installations and greatly reduced installation times. With the use of a HIT-111, retrofitting times can be reduced to a matter of minutes per lock.

The HIT-111 attaches to the door and locates all required drill locations with hardened drill bushings. Alignment is accomplished by the use of two alignment washers located on each side of the guide, centering inside of the existing cross bore. Once tightened to the door, all holes required for through-bolts and anchor plate lugs can be quickly and accurately drilled, without measuring or marking.

The HIT-111 will work on doors drilled with a 2-3/4" backset and between 1-3/8" and 2" thick. An optional kit for 3-3/4" and 5" backsets is available. The tool is machined from 6061T6 aluminum and finished with a blue powdercoat finish, all steel parts have been black oxide treated.

The following photographs of the HIT-111 will show a typical knob lock installation being retrofitted with a grade 1 NT Falcon T series lever.

With the mandatory use of lever locks on public accessible buildings to comply with ADA requirements, the retrofit of cylindrical knob locks to cylindrical lever locks has obviously greatly increased. The speed, cleanness and accuracy that the HIT-111 installation jig will provide to accomplish such a task is unsurpassed.

**Continued on page 52**

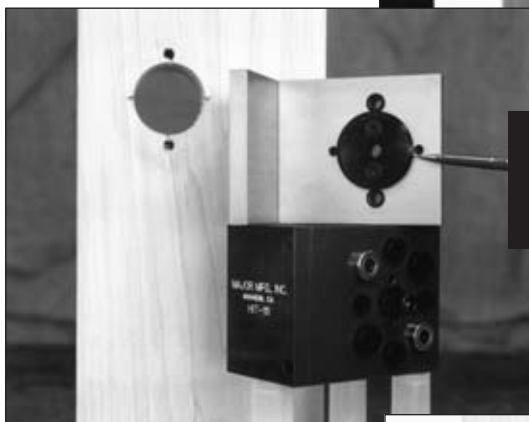


1

The key in knob lock to be retrofitted. It will be replaced with a NT Falcon T series lever.

The new door prep which requires through-bolt holes at the 6 and 12 o'clock position.

2

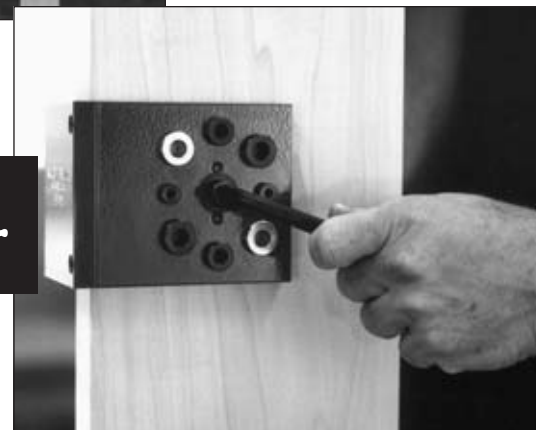


3

Accuracy is achieved with the use of tapered alignment washers on both the front and back plate.

The HIT-111 fastened to door with the use of an bolt.

4



Continued from page 50



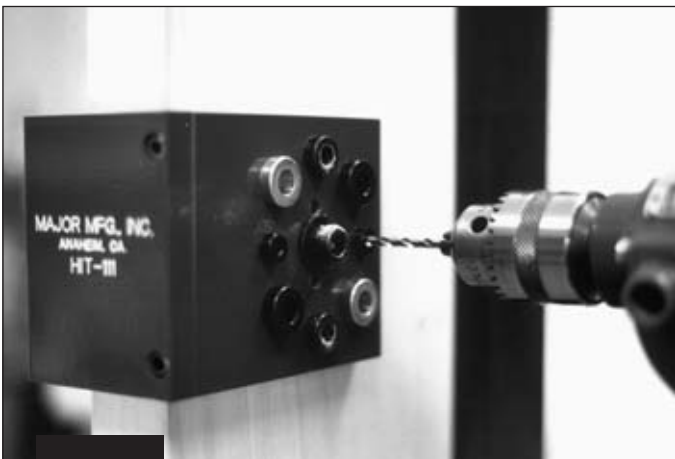
5

Proper hole location has been chosen and through bolts are being drilled.



8

Perfect fit with the lock installation started.



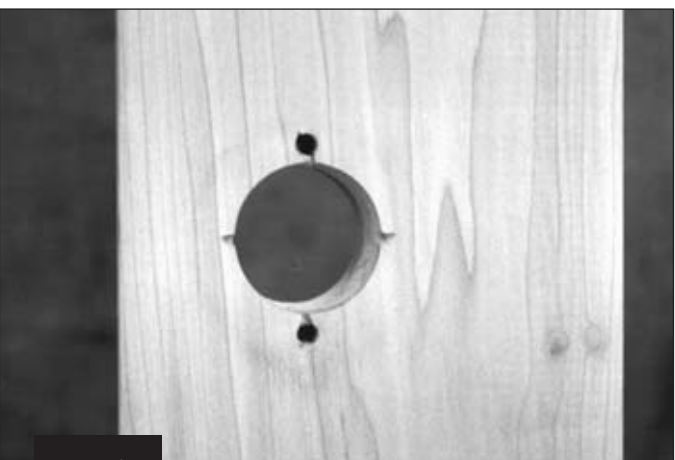
6

Anchor plates being drilled with a 5.32" bit. For NT Falcon the holes will have to be squared off with a file.



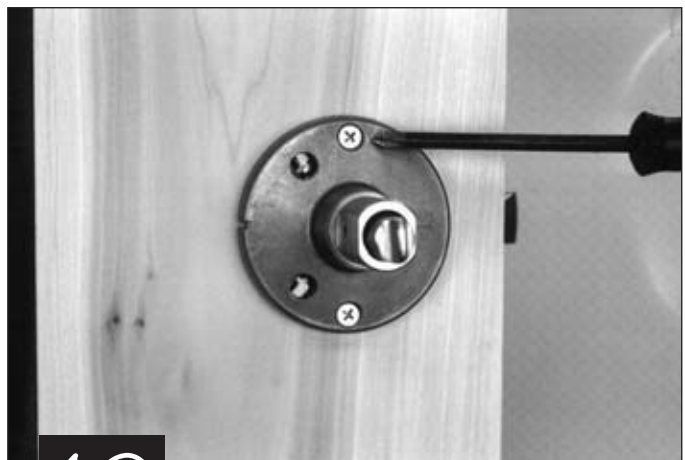
9

Flange nut being tightened with the use of a Major Manufacturing HIT-2 wrench.



7

Completed prep for the NT Falcon T series lever lock.



10

Mounting screws tightening inner mounting plate in place.



11

Completed installation showing outside lever.

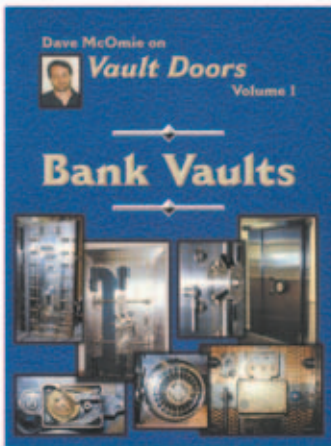
Besides the obvious benefits the HIT-111 will provide, the versatility of the unit is just as impressive. The HIT-111 is designed to retrofit a number of different manufacturers lever locks. The accompanying chart shows the different locks that can be retrofitted by the HIT-111 as well as other available models.

LOCK MANUFACTURER	HIT-10	HIT-12	HIT-13	HIT-14	HIT-111
ALARM LOCK TRILOGY	X				
ARROW SIERRA					X
ASSA BROOKLYN					X
BEST 9K GRADE 1		X			
CAL-ROYAL GRADE 1		X			
CORBIN/RUSSWIN 800/3400 SERIES					X
CORBIN/RUSSWIN 3600 SERIES					X
LORI 2100 SERIES RETRO KIT					X
LORI 2200 SERIES RETRO KIT					X
LORI 2250 SERIES RETRO KIT					X
LSDA LX SERIES		X			
MARKS HDWE 170 SERIES			X		
MARKS HDWE 190/195 SERIES			X		
MEDECO EMBASSY 17 SERIES					X
MEDECO EMBASSY 19 SERIES			X		
NT FALCON RE-LEVER KIT				X	
NT FALCON T SERIES LEVER					X
OMNILOCK					X
PDQ SPIRIT ALL SERIES					X
S PARKER HDWE XL SERIES		X			
SARGENT 10 LINE GRADE 1					X
SARGENT 6500 SERIES GRADE 2			X		
SCHLAGE RHODES GRADE 1					X
SCHLAGE AL GRADE 2					X
SIMPLEX UNICAN	X				
TACO GRADE 1 LEVER		X			
US LOCK GRADE 1 LEVER		X			
US LOCK GRADE 2 LEVER			X		
YALE AU5400LN					X

If you would like more information about the HIT-111 or any of the other fine products Major Manufacturing supplies, call: (714) 772-5202.

TNL

## Dave McOmie on Vault Doors Vol. 1 & 2



These openings can be a nightmare, but not when you bring Dave McOmie along with you on the job.

CLICK HERE TO LEARN MORE



# The **UGHTER** Side

Risky Business



by  
**Sara  
Probasco**

**“Hello, A-1 Lock & Key? Do you really do service calls, this time of the morning?”**

Dana Hall\* pried one eye open and peered at his bedside radio-alarm. The lighted red giant-size digital numerals stared back. Two twenty A.M.. Maybe, if he closed his eye again, the caller would go away. He decided to try it.

“Hello? Is anybody there?” The young female voice asked plaintively. “I need some help.”

“Yeah. I’m here. Hold on a minute.” Rolling out of bed, Dana’s feet tangled in the covers and he hit the floor. Grumbling loudly to himself, he finally regained his footing and his composure. “Now, what seems to be the problem?” he asked with pencil poised in hand.

“I’m having a terrible day, and the sun isn’t even up yet.”

“I can sympathize. I mean, how can I help you?”

“Oh, well, you see, I thought I’d left something in my car, so I came down to get it, only it wasn’t there, but when I started to go back inside, the door had locked behind me, and my keys are inside.”

“Inside the car?”

“No, inside the house. The door slammed shut and locked when I came outside. Can you get me in?”

“Sure. Let me get some information, and I’ll be right over.”

When Dana arrived at the customer’s house, he found the young woman sitting bare-foot on the front steps, hugging her knees, her cell-phone clutched in her hand. She seemed to be wearing a T-shirt, pulled down over her drawn-up knees and stretched to the limit, which happened to come just above her ankles. There she sat, in her double-knit cocoon, while the locksmith went about picking open the door lock.

When the door was opened, Dana returned to his service van to write up the invoice. He glanced up just in time to see his customer skitter up the steps and into the house. Sure enough, she was wearing a T-shirt. Period. A very red-faced young lady

had pulled on jeans before she came back to the door to pay the bill.

Don was telling me about Dana’s experience late one evening, when one of our guys called in, asking Don if he could help him with a vehicle lock-out call he’d received. The problem was, although our guy had quoted the young woman the price before he went, when he started doing the work, she said she didn’t want to pay what he’d quoted. Our guy wasn’t sure just how to proceed.

Don instructed him to go on home after telling the customer the boss would be there shortly to finish the work and that she should be prepared to pay upon completion of the job.

When Don arrived on the scene, another man had been trying to get her vehicle open with a coat hanger. He was now about to break out a window.

“She really doesn’t have any money,” this man told Don quietly. “I’m just trying to help her out.”

By the time Don had the vehicle open, the woman had the money in hand.

It wasn’t until a couple of days later that Don learned “the rest of the story.”

It seems when our guy - a younger man - arrived at the job site and started his work, the woman had attempted to bargain with him, inviting him to come inside and offering “personal favors” in place of legal tender. Embarrassed, more than a little flustered, and unsure of the proper way to handle such a situation, he had called Don to the rescue.

“She never mentioned being short on money, much less any form of alternate payment plan to me,” Don said, laughing. “I guess she took one look at my grisly old beard and grungy work clothes and changed her mind right quick about that.”

“Have you ever had a customer proposition you?” I asked - not really sure I wanted to hear the answer. I had seen other locksmiths raise their eyebrows and make veiled comments about such things, but it had never

occurred to me that anyone at our store might run into it.

“Oh, a time or two, mostly when we were first getting started in business,” Don admitted. “I remember a particular woman who called to have me change house locks in the middle of the night. She wanted me to stay around and console her after I got through with the work.”

“What did you say to her?” I demanded to know.

“That I had enough consoling to do at my own house. I wasn’t about to stick around there and get my head blown off by an irate husband,” he said, his eyes twinkling, “and I wouldn’t have been exactly thrilled about facing the fury of a scorned wife at my house, either. No, honey, that’s one thing you don’t need to worry about, where I’m concerned.”

“I know that,” I said. “But the neighbors don’t.”

“What do you mean?”

“Remember the first year you were in the locksmith business, up in Floyd County. A young widow had called you to re-key her entire house? It was a big job, and you were new at it, so it wound up taking you pretty much all day.”

“I remember. She spent the day lolling around her swimming pool in a bikini,” Don added.

“Well, not the whole day. Every now and then she would saunter out into the front yard to move a garden hose or get something out of her car. In her string bikini. The whole neighborhood was a-twitter.”

“How would you know?” Don asked.

“It’s a wife’s responsibility to keep tabs on such things,” I said, smiling. “Besides, Pauline lives right across the street from the widow, and she felt it was her duty to keep me informed. She called me about the middle of the afternoon, that day. After chatting a moment or two, she nonchalantly inquired as to your whereabouts - just to see if I knew. Of course, I did, but I didn’t let on. I said something like, ‘He’s out on a service call somewhere,

and he sure has been gone a long time.' Of course, she clued me in on your location, exactly how many hours and minutes you'd been there, and every detail of the string bikini."

"I always wondered why you dropped by there, personally, with that 'emergency' lock-out order, instead of just calling it to me," Don said. "I didn't know it was because you didn't trust me."

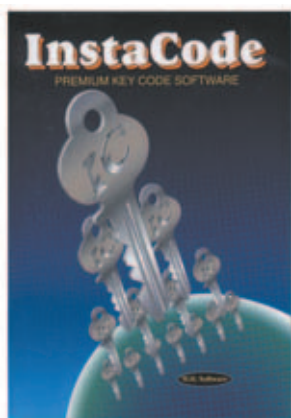
"That never entered my mind! It was just that Pauline would have been crushed if she hadn't seen me do something! Besides, what's the use of having nosy friends, if you can't give them something to sniff out, once in a while." We both chuckled. Then I added, "You know, I guess we never realized what a risky business we're in," I said.

"I don't know if 'risky' is the right word," Don replied, "But it sure can get a bit risqué, at times.

\* Many thanks to Dana Hall of A-1 Lock & Key in Topeka, Kansas, for sharing an experience that provided the basis for part of this article.

TNL

## InstaCode 2002

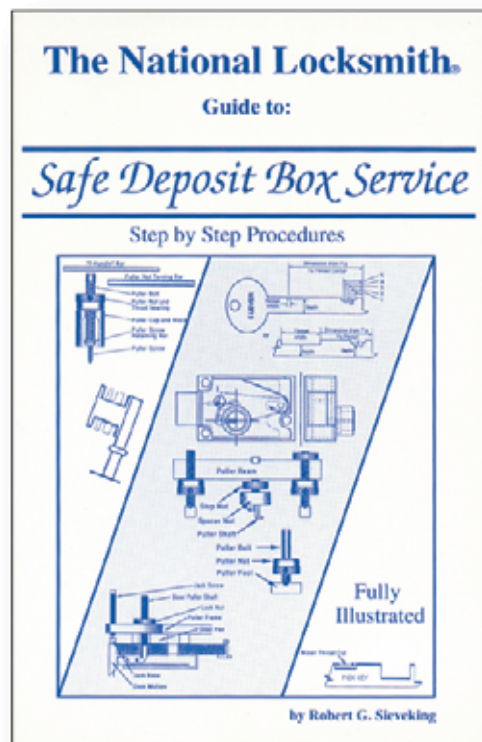


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#IC - 2002

# Safe Deposit Box Service



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#SDBS - 1

# AMSEC mini



by  
Dale W. Libby, CMS

Being a safecracker means that you have to work on most safes that come your way, large and small. This month I will focus on two small imported safes from AMSEC, models ES913 and ES1114. The "ES" in the model number refers to the fact that the safe has an electronic keypad to input the combination. The ES probably refers to Electronic Safe.

The advertising states that these safes are burglary resistant with a state of the art digital electronic locking system. It can be bolted to the floor or to the wall. There is a key override system and the unit has dual live bolts made of heavy gauge steel. Shelf and mounting hardware (on the ES1114 only) is included. The model ES913 weighs 38 pounds, while the ES1114 tips the scales at 52 pounds.

Soon you will see these safes everywhere in stores under a myriad of names including "Brinks." A distributor of these units told Little Tommy that if he bought enough of these items, they would put his name on them. Both these units sell for about \$200.00 to \$235.00 full list. I am sure the discount stores will kill the independent locksmith on these prices.

The brochure states that these units are "Burglary Resistant." What does that mean? It may mean that the doors are sunken slightly below the lip of the door so it would be hard to pry these doors open. It may also mean that the hinges are concealed. I am not sure what it means, but it will get the customer's attention.

The next phrase is "State of the Art Electronic Locking System." This means that there is a pushbutton

keypad that operates a solenoid. When activated the solenoid drops a 1/4" bolt below a horizontal plate. That is all. State of the Art? Again, sounds better than it really is.

These safes look good. They have a keypad with numbers 1-0, and the letters "A" and "B". *Photograph 1*, shows the smaller ES913 unit and *photograph 2*, features the larger ES1114. Another feature I like is the key override system. In *photograph 2*, the plastic key cover has been removed and the cam cylinder face can be seen. On the back of the plastic cover is shown #11. This is the number of the Sisco override key, number 11. I tried for about 10 minutes to pick the bi-directional wafer lock and I was not able to do it. If this method fails, there are several other ways to get into this safe.

*Photograph 3*, shows the large 1/2" bolts used to secure the unit closed.



1. The smaller ES913 unit weight 38 pounds.



2. The key cover has number 11 on it. This is for bypass key 11.

3. Dual locking bolts.



4. Four AA battery compartment and combo reset button.



5. X114 (DA24) duplicate and original Sisco #11 bypass key.

When the combination is punched in, you have about 5 seconds with which to pull the large chrome handle out from its right side. As the handle pulls out, the bolts are pulled into the safe over the solenoid.

In *photograph 4*, we see the battery compartment and the program button.

The back of the safe is also labeled. The upper label points to the "Re Program Button," which is a red plastic momentary contact button at the top left in this picture. The lower label says "Battery Compartment 4 "AA" Batteries." Also, the three screw holes can be seen to remove the back cover of the safe.

The override key can be used instead of the combination at any time, whether the batteries are dead or not. *Photograph 5*, shows the original Sisco key on the right with a number 11 on it. To the left is the key that I used to duplicate the bypass key. It is an ILCO X114 or DA24. In *photograph 6*, the key is shown inserted and turned to the left (counter clockwise). At this point pull open the chrome handle to open the door.

The key lock turns a hooked cam inside the unit. The end of the hook cam presses against a large washer attached to the solenoid bolt itself. This pushed the solenoid bar down far enough to let the bolt bar bypass the horizontal flat that keeps the safe locked. This is shown in *photograph 7*.

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#TIPS - 2

**6. Insert bypass key and turn left (CCW), pull out chrome handle and open door.**



The top of the bolt bar is located 1-1/4" to the left of the key lock (from the outside) just above the level of the cam lock. Drilling here would be a quick and easy way to open the unit, but there is a more sneaky way to get this unit open with no damage to the electronics. This has to do with the reset button.

To open and program the combination for the first time, press 1, 5, 9, and letter A, and pull the chrome handle to open the door.

Locate the button on the inside of the door near the hinges.

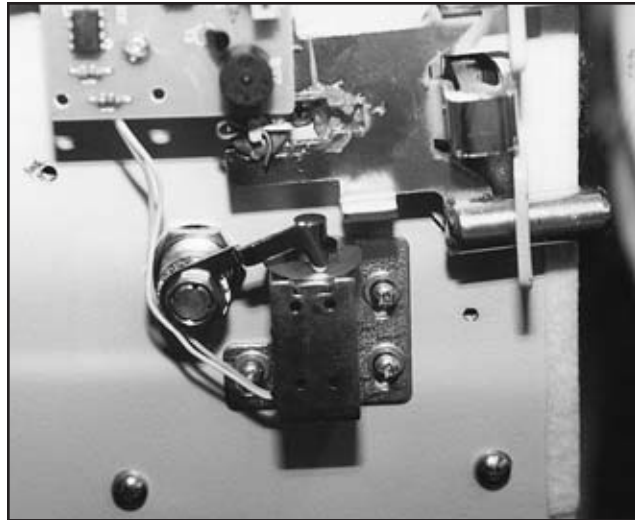
Press and release the button, you will hear a beep.

Now press between 3 and 8 numbers to use as a combination. Confirm by pressing the letter "B". Write the numbers down.

To open the safe, push the numbers you have selected followed by the letter A. and pull the chrome handle.

There is a wrong number penalty.

**7. Hook cam at back of cam lock depressing large solenoid washer.**



The first set of wrong numbers will cause a 20-second lockout. If the combination is done wrong again, then the wait is over 5 minutes before you can input new digits. If the wrong numbers are used again, there is an hour time out.

After entering the correct combination, you have 5 seconds to pull the lever and open the door.

The batteries can be tested by using the keypad. If the batteries are low, a

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By Jerrold C. Pelt, CPL

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#FRM - 1



**8. Mounting kit on the ES1114.**



red light (diode) will flash on the keypad. To test the batteries, just push the "B" button. If nothing happens, it means that the batteries are in ok. The red light will begin to flash immediately if the batteries are low. You have about 1 month of openings before the batteries will fail after the red lights starts flashing, then the override key will have to be used to open the unit.

Apparently, if you lose the electronic combination and the safe is open, then all one has to do is to push the red plastic button and program in a new combination. But the diabolical dual went one better. Just below the level of the diodes approximately 1/8"

(on either size unit) and back 3/4" on the hinge side of the safe, drill a 1/8" hole. This small hole will let you insert a wire, miss the bottom of the upper hinge, and push the reset button when the safe is locked. When you hear the beep, you can now make your own new combination. With the above directions, you can now program is a new combination and open the safe. The only repair is a 1/8" pop rivet.

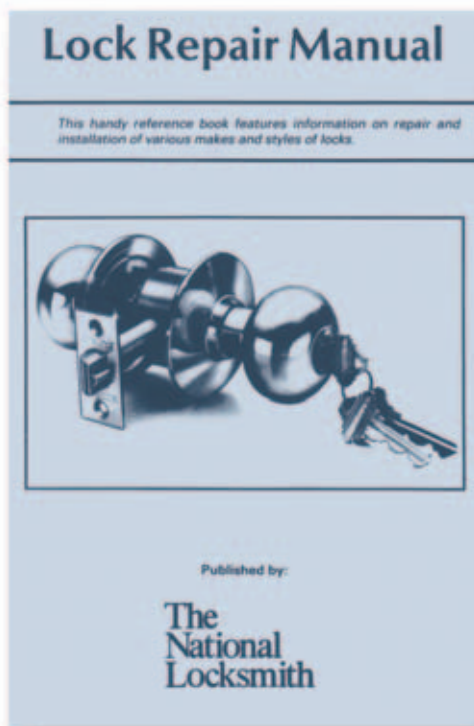
Mounting this safe is quite easy. Shown in *photograph 8*, is the mounting hardware for the ES1114 larger unit. There are four plastic buttons and four mounting screws. There are also four included breakaway shear head bolts

for permanent mounting. These are the long bolts at the bottom of the picture.

There are two additional items that are included with the safe. The first is a large soft mat type pad. One side has a removable paper with strong glue underneath. This pad can be stuck to the bottom of the safe so that it can be paced on a desk or table without marring the support surface. One does not have to mount the unit permanently, but there is more security with a fully mounted unit.

To that end, AMSEC includes a paper-mounting template with the safe, which have exact mounting configurations. It also shows and explains how to use the screws to mount the safe and the footpads, and how to mount the safe permanently with the breakaway screws.

All in all, a good cabinet with interesting features. I like the key bypass. If that does not work, then drill for the electronic reset button and change the combo while the safe is locked. If the batteries are dead, then pick, drill, or otherwise beat the cam lock and push the large washer on the solenoid and open the unit. Open electronic digital safes and prosper! **TNL**



# Lock Repair Manual

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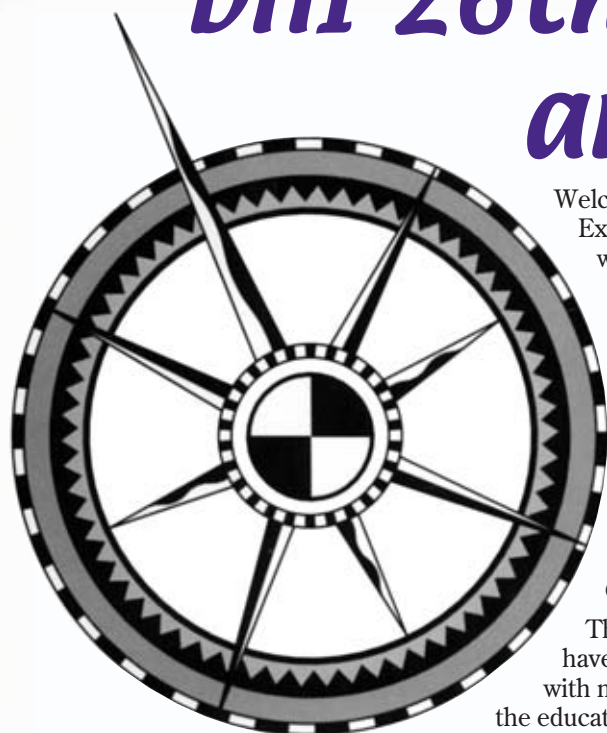
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DHI 26th Convention and Exposition

# DHI 26th Convention and Exposition



Welcome to Baltimore, Maryland for DHI's 26th Annual Convention and Exposition. For everyone involved in the architectural industry, this will be the place to learn the latest business trends and developments as well as see the latest collection of new products. Manufacturers will be displaying their full range of products and services, including doors and frames, hardware, access control, security products and other specialty hardware products.

The host city for this year's event, Baltimore, is known as the Charm City which has something for everyone, from history and culture to sports teams playing in stadiums near the convention center. If food is what you are looking for, Baltimore has much to offer. Baltimore features everything from Chesapeake Bay cuisine to Italian delights to many traditional fares. Crab is of course one of them.

This year DHI expects to break all the attendance records. They will have more than 450 exhibit booths at the Baltimore Convention Center with more than 200 exhibiting manufacturers. You can also benefit from the educational and networking opportunities available, offering 18 educational sessions. More than 4,000 distributors, manufacturers, architects, specifiers,

building owners and managers, code officials and locksmith are expected to attend.

Ever-evolving technology and market changes can quickly alter familiar business waters. Come, join your fellow DHI members in Baltimore and learn how to better navigate the channels of the new millennium. **NL**

Cut out or photocopy and send to: The National Locksmith, 1533 Burgundy Pkwy., Streamwood, Illinois 60107-1861 / Fax: (630) 837-1210 / E-mail: Natilock@aol.com

## Table of Contents

- DHI Exhibitor Listings  
DHI page 4
- DHI Product Showcase  
DHI page 6
- The Detex Value Series  
DHI page 14
- Medeco Key Wizard  
DHI page 22
- Peaks®6340  
Cores for Medeco  
DHI page 24
- Understanding Access  
Control, Part One.  
DHI page 26
- Advertiser's Index  
DHI page 30

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206	226	246	266	286	306	326	346	366	386
207	227	247	267	287	307	327	347	367	387
208	228	248	268	288	308	328	348	368	388
209	229	249	269	289	309	329	349	369	389
210	230	250	270	290	310	330	350	370	390
211	231	251	271	291	311	331	351	371	391
212	232	252	272	292	312	332	352	372	392
213	233	253	273	293	313	333	353	373	393
214	234	254	274	294	314	334	354	374	394
215	235	255	275	295	315	335	355	375	395
216	236	256	276	296	316	336	356	376	396
217	237	257	277	297	317	337	357	377	397
218	238	258	278	298	318	338	358	378	398
219	239	259	279	299	319	339	359	379	399
220	240	260	280	300	320	340	360	380	400

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# DHL Product Showcase

Here is just a sampling of new products being displayed at the 26th Door & Hardware Institute convention and exposition in Baltimore, Maryland.

## Olympus Lock, Inc.

The new Olympus 777 and 888 series cabinet door and drawer locks, are to accept Schlage's large format interchangeable cores. The 777IC and 888IC Series may be used with Schlage Quad, Numbered Section, Everest and Schlage Classic large format IC cores, Medeco Keymark IC cores, and Mul-T-Lock large format IC cores. The 777P and 888P Series accept Schlage Primus large format IC cores.



The Olympus 777 and 888 IC core cabinet locks will retrofit any of our standard 1-1/8" diameter cabinet locks and use the same footprint as Olympus Lock's #700SC, #800SC, #721, #850, or #950 cabinet locks. These items may be purchased in either US26D or US3 finishes. Both the 777 and 888 Series cabinet locks are sold less the core. Key-retaining function is an available option for either the 777 or 888. The new Olympus 777 and 888 cabinet locks will be available for shipment beginning the 4th quarter, 2001.

## Detex Delayed Egress Exit Device

The new DE9000 Delex™ series of delayed egress exit devices improves access control at door openings while permitting egress during emergency situations.



The sleek and durable DE9000 activates an integrated 85-decibel alarm when the touch bar is pressed and held. After a 15-second delay, the device releases and permits egress.

For authorized egress, overrides can be triggered through activation devices such as remote consoles, key switches or card readers, as the unit can be integrated into electronic security systems.

## Master Lock Heavy-Duty Hasps

Master Lock Company now offers a complete heavy-duty hasp line with the addition of four broad application commercial hasps that are widely demanded today:

- A straight bar hasp (No. 730) for common flush closing door and gate applications.

- A 90-degree bracket hasp (No. 731) ideal for vending, warehouse and other common double-door systems.

- A 90-degree angle bar hasp (No. 732) for tight corner and sliding door security.

- A circular two-piece hasp (No. 770) that surrounds Master Lock's solid steel round padlock (No. 6270), to prevent attacks.

These hasps are constructed of hardened steel for maximum security against physical attack. The 730 and 732 feature concealed mounting hardware and are designed without traditional hinge pins, to further thwart thieves.



All feature a corrosion resistant chrome finish. These new hasps complement Master Lock's comprehensive line of hasps which include massive solid iron hasps with boron alloy staples (Nos. 723 and 724); single and double hinged hasps to fit most corners and angles (Nos. 720, 721 and 722); and general purpose hasps (Nos. 702, 703, 704 and 706).

## HTL Door Hardware

Brass handle sets in polished, antique, white, chrome, matte black, oil-rubbed brass and brushed chrome finishes, including handles extensions to adapt to a variety of window treatments are the specialty



ANSI/BHMA F90 and F92 Function Locksets.

F90 – Corridor (MARKS USA Function T) Latch by lever either side unless outside locked by key or inside push button. Unlock by key, turning inside lever or closing door.

F92 – Service Station Lock (MARKS USA Function TS) Latch by lever either side unless outside locked by key or inside push button. Unlock by key, turning inside lever or closing door, except when slotted pushbutton is turned in the locked position. Inside always opens latch.

of HTL. The solid-brass forging offers high strength, intensity and durability, as well as a smooth, blemish-free surface on each item that makes a commanding statement.

Each trim set is protected with a clear protective coating to reduce scratching and provide lasting beauty with minimal care. Also available are handle sets of aluminum and stainless steel that meet a variety of decors, climates and wear-ability requirements. This European designed and manufactured door hardware is available in North America only through Hardware Technologies Ltd.

### **MARKS USA F90 and F92 Cylindrical Lockset**

To answer the challenge for security in today's classroom environment, MARKS USA Custom Lockset Division has developed the "Survivor Series" ANSI/BHMA F90 and F92 function locksets with the clutch design. MARKS USA has incorporated all of the standard features of the "Survivor Series" (Clutch System, Super Strength Retractor, Long Life Lever Support Springs and a Life Test of over 1 million Cycles) with their new



### **Von Duprin 5100 Electric Strike**

The 5100 Electric Strike is produced to meet the needs of locksmiths and security professionals. Offering versatility, convenience and durability, this easy-to-install electric strike was created for medium-duty applications, specifically to control traffic flow through interior and exterior openings in retail and commercial environments.

Each electric strike kit comes standard with three faceplates (for

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wood, aluminum or hollow metal frames), a 12/24 dual-voltage solenoid, fail-safe/fail-secure select ability and an adjustable keeper.

**Videx CyberLock® Interchangeable Core**

The Videx interchangeable core version of CyberLock is the latest in a fast-growing family of access control products. The CyberLock system consists of an electronic lock cylinder and electronic key, each containing a microprocessor and memory. When an authorized user gains entry, a record of the user ID,

date, and time is stored in both the key and the cylinder, creating a lock history and a key history. The CyberLock cylinder holds the last 1100 events, while the CyberKey holds the last 1150 events. The CyberKey can be programmed with a list of locks the key is authorized to open, and the dates and times when these openings are permitted.

The CyberLock family of intelligent cylinders is extensive. For exterior and interior doorways, Videx has created CyberLock versions of the mortise, rim, knob, and lever set locks. For cabinets and containers, Videx has electronic CyberLock cylinders for padlocks, cam locks, and vending machine T-handle locks. Each cylinder is



designed to the exact dimensions of the mechanical lock cylinder it is replacing, which allows electronic CyberLock cylinders to be installed in standard lock hardware in minutes.

Since there is no battery in these cylinders, CyberLock can go virtually anywhere. CyberLock cylinders can be found in padlocks securing freight in trucks. Chemicals in outside buildings, or equipment in outdoor pumping stations. CyberLock cam locks can be found securing access to network servers and cash drawers. CyberLock mortise, rim, and lever locks can be found securing doors throughout a building complex.

**Ives VR900 Series Trim**

For high-abuse areas, you need a push/pull trim that's difficult to vandalize. The shape of traditional pull grips makes them susceptible to break-ins. But Ives' VR900 Series Trim is different, both in shape and construction.

The Ives VR900 Series is made from a one-piece stainless steel plate with a formed, sloped handle. And rugged mounting hardware and an extra-tough cylinder collar protects it.

# High Security Safes Volumes 1 & 2



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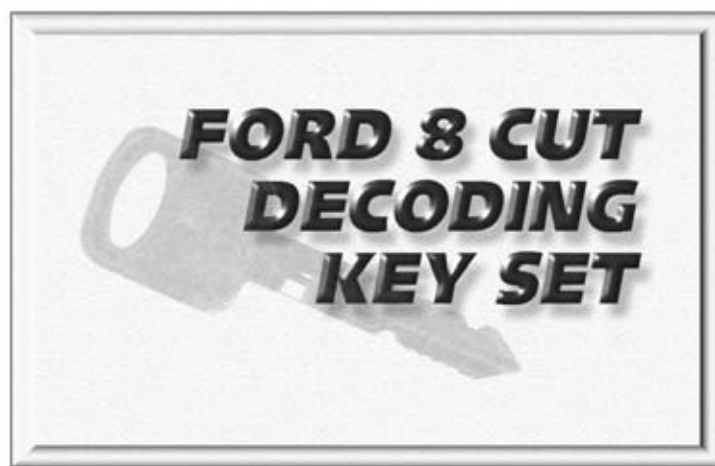


The VR900 Series Trim is designed for applications where the locked side of the opening requires a “pull only” or a “pull with access by key,” and is for use with mortise locks or exit hardware.

### **Illinois Lock Pushbutton Combination Locks**

The new D900 Series Pushbutton Combination Locks from Illinois Lock Company have been specifically designed for durability and long life in an affordable package. More robust than comparable pushbutton locks, the D900 model mounts securely in sheet metal or wood. Ideal for OEM and retrofit applications, all of the D900 Series locks can be installed in the vertical or horizontal orientation and feature large easy-to-

# Ford 8 Cut Decoding Key Set



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#FD - 8



read buttons, and ergonomically designed santoprene molded knob and latex-free construction. Combination reset feature supports unlimited combinations and the D900 configuration comes standard with manual key override.

**Dor-O-Matic**

Dor-O-Matic now offers the 1690 concealed vertical rod push pad device, which is a significant upgrade to the conventional crossbar design. The 1690 have sturdy metal end caps and center case cover, sound dampening for the in-stroke and out-stroke of push pad movement, quick single-point dogging and reversible field handling.



The 1690 can easily be interchanged with the 1990 crossbar device because they have the same rods and latches. In fact, the 1690 can replace the 1990 without removing the door. The 1690 also offers the options of electric latch retraction and touch bar monitoring switches, but the 1990 device has no electrical options.

**Zero and Brassart Ltd Form Alliance**

Exquisitely crafted, solid brass, heritage-design door fittings and other decorative accessories from British manufacturer Brassart Ltd. will soon become more widely available to American designers as a result of a new alliance with Zero International. Zero is now responsible for U.S. distribution of the entire Brassart line. Previously supplied on a limited basis for specific projects only, the fine Brassart products will soon be available nationally through a select network of qualified distributors. Inquiries should be directed to Zero, which will also handle all correspondence, quotations and billing.

Brassart represents a corporate tradition of excellence and expertise



that is approaching half a century. The company manufactures a wide array of door fittings, bathroom accessories and electrical fittings suitable for applications in corporate headquarters, as well as residences and high-end condominiums. Renowned for their superb craftsmanship, all products are foundry-cast in Brassart's U.K. factory in Lye, then finished and polished by hand using centuries-old techniques.

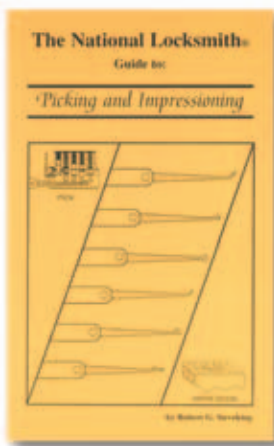
Brassart offers authentic, visually stunning designs in period suites ranging from Louis XIV and Early Georgian, up to twentieth century styles and Contemporary Hardware. Designers can also order custom accessories created from Brassart's archived heritage patterns, or crafted to match exact customer requirements. All products are offered in 23 different finishes.

**Monarch 2200 Series Retrofit Plate**

The frustrations of retrofitting an exit device may soon be a memory for locksmiths around the country. The new Monarch 2200 Series retrofit plate is designed for locksmiths who want to simplify their lives. The Monarch 2200 Series retrofit plate covers existing door preps for other



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exit devices so it can be used practically anywhere. It costs less than most like-for-like replacements. So locksmiths benefit by reducing their inventory costs and the need to carry multiple brands in stock. And their customers benefit from this new door hardware solution too. The Monarch 2200 Series retrofit plate reinforces the existing cut out, thus making the door stronger.

### **Dortronics 1100 Series Magnetic Locks**

The 1100 Series consist of six architectural grade models with holding forces that range from 650 to 1500 pounds. All six of these slim-line units are available with special finished housings in dark bronze, gold bronze, or black anodize as well as polished and satin chrome or brass finishes. All



feature Dortronics' rugged design and construction to help assure virtually endless actuations without the fear of electrical fatigue or mechanical breakdown, and are covered by a 10-year limited warranty.


With six different models in eight off-the-shelf finishes, the 1100 Series Magnetic Locks offer architectural designers and security contractors attractive high performance and durability for numerous access control applications in different environments. Dortronics can also provide these locks with custom sized housings on very short notice."

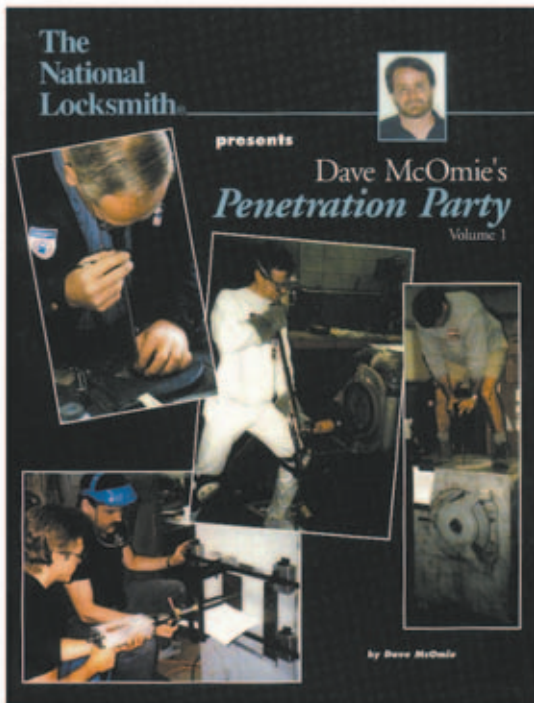
Dortronics 1100 Series Magnetic Locks can be controlled and monitored individually, sequentially or simultaneously from one or multiple locations. The units are ideal for use with automatic swinging and sliding door systems, intrusion alarm systems, and can be used in sensitive computer areas. A built in suppressor system protects the locks circuitry and components from noise and spikes, allowing 1100 Series Magnetic Locks to be interfaced with virtually any electronic access control and monitoring systems.

### **Visonic Outdoor Keypad**

The CL-80 provides all the features dealers request: 56 user codes, high powered relay, programmable timer (0-98 seconds) or latching operation, request to exit input and auxiliary output. The CL-80 can withstand



temperatures from 0°F to 150°, and is weatherproof to IP54 standard. Three onboard LED's provide visual status information. A panic output can be triggered by pressing # and \* keys simultaneously. A penalty timer prevents unauthorized entry by locking the keypad for 30 seconds after three consecutive invalid codes have been entered. 



# Penetration Party

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12

# The Detex®

## Value Series



by Jake Jakubowski

The German philosopher Fredrich Nietzsche, in his book *The Will to Power*, said: "As soon as we are shown the existence of something old in a new thing, we are pacified."

It is true that the familiar, comfortable and common place is more readily acceptable to us than new or radical ideas or products. But, when we can see evidence of the old and familiar in a new idea or product, it is easier for us to relate to the latest innovations. Especially when they come from a company that, over the years, has proven their dedication to imaginative and quality oriented security products.

From 1878, when Abraham A. Newman started a watch clock business, until 1924, when the Newman Watch Clock Company became the Detex Corporation, quality, innovation and customer service have been company and corporate hallmarks.

In case you might be wondering what a watch clock is, *photograph 1*, shows one of the ubiquitous Watchman's time clocks that many of us can remember seeing being carried by night watchmen in businesses throughout the country.

In the early 1960's Detex Corporation added the boxy,



1. Watchman time clock.



2. Detex's Advantex series.

squared off alarmed exit (ECL) device to their growing line of security devices. Their product line continued to expand and today, Detex's more recent development is the Advantex series of panic exit hardware.

If you go back to the April, 2001 issue of *The National Locksmith*, you will find an article I wrote on Detex's Advantex series. (See *photograph 2*.)

That device is unique in that it can be configured for single-point latching (rim cylinder mode), or double and triple point latching with the addition of exposed vertical rods!

In certain market applications, the Advantex series, although a well-engineered, well-designed and easy to install product, would not be acceptable for economic reasons.

Addressing those concerns, Detex, developed the "Value Series™".

The first and most obvious difference between the two devices is that the Value Series™ does not have a stainless

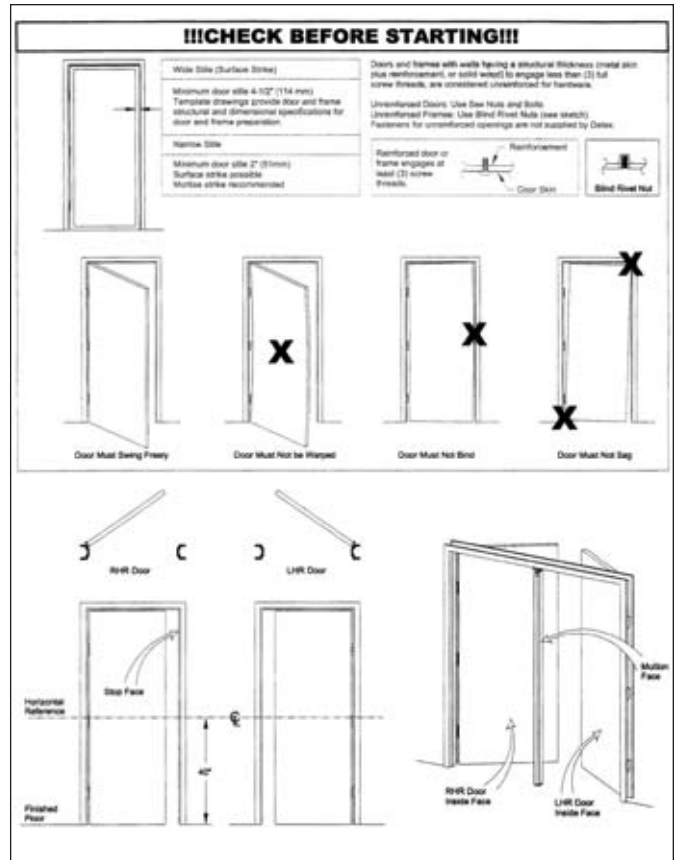
steel body. The other, less noticeable difference is the Value Series™ does not have the capability to be configured (at this time) beyond a single point, rim mounted panic hardware device (Value Series V40), or a rim mounted fire rated exit device (FV40).

What the V40 and the FV40 do offer, are easy-to-install (would you believe 15-minutes, not counting door prep!), good-looking, well-made, alarmed panic exit devices that have every bit of Detex's innovative and practical design expertise that they have been noted for throughout their history. At a price that is competitive with any moderately priced rim mounted device on the market.

But price, competitive or otherwise, is not really a factor when you consider the long-term cost savings of Detex's Value Series™. What do I mean by that? Well, earlier, I outlined the differences between the Advantex and the Value Series™. Yes, there are some design and configuration differences between the two. (See *photograph 3.*) However, in my opinion, there are no notable differences in the overall quality of the two devices, and the ease of installation is about on par. They are simply designed to fill two different market areas.



**3. The Detex Value Series™.**



**A. Make sure that the door is properly hung.**



# Sieveking Auto Key Guide

The Sieveking Auto Key Guide lists over 2,600 automotive and motorcycle keyways, covering makes from Acura to Zundapp, and listing fourteen popular key manufacturer numbers.

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**4. Plastic strike mounting template.**



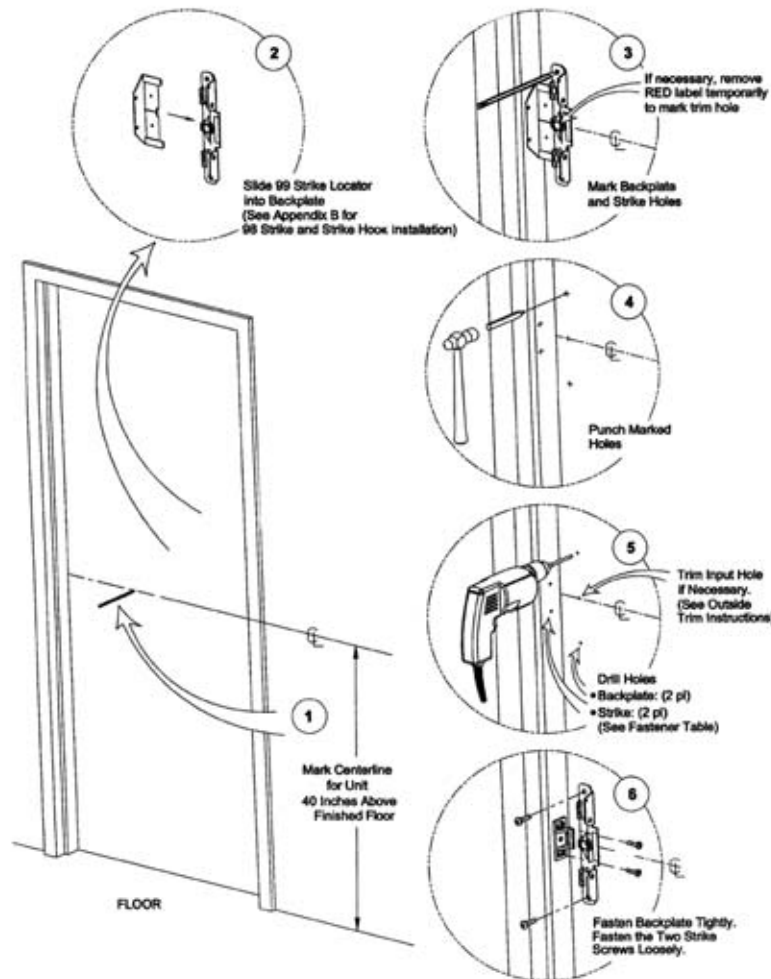
**5. The V40's back plate slid over the mounting tabs.**

The Value Series™ panic hardware, when properly installed, used and maintained, is warranted by Detex to be free of any defects in workmanship or materials for a period of three years (electrical components are guaranteed for one year). Detex will, in accordance with their written warranty, replace any unit that proves to be defective within that period of time!

Okay, so come with me while I install a V40 on the back door of a restaurant. As I said earlier with the exception of the door repairs and preparation, the actual installation of the V40 took right at fifteen minutes!

Actually, I installed two of these units. One in a hospital (with the black plastic cover over the push bar), and this one, with the red cover over the push bar. You'll notice that the first shots you see of the V40 show an aluminum push bar and later it shows up red with the warning in white letters.

As with any lock or panic/fire exit device, you first have to make sure that the door is properly hung and functional. You need to check the hinges, door/frame clearances, door/threshold clearances and the stability of the frame. If



**B. Detex's mounting instructions.**

any of those components need attention, then they have to be repaired, replaced or refurbished before you install the V40.™ (See Illustration A.)

In this particular case, the door needed new hinges, frame stabilization, an escutcheon and pull handle on the outside, as well as a new door scope and threshold. Remember my article about Total Door Service? This was a major project and the installation of Detex's V40 Value Series™ was the icing on the cake, in my opinion.

Okay, now that the door is devoid of its old lever set and is functioning without any scraping, grinding, sagging or binding, it's time to get started on the installation of the V40.

Photograph 4, shows Detex's plastic strike mounting template in place on the door stop at

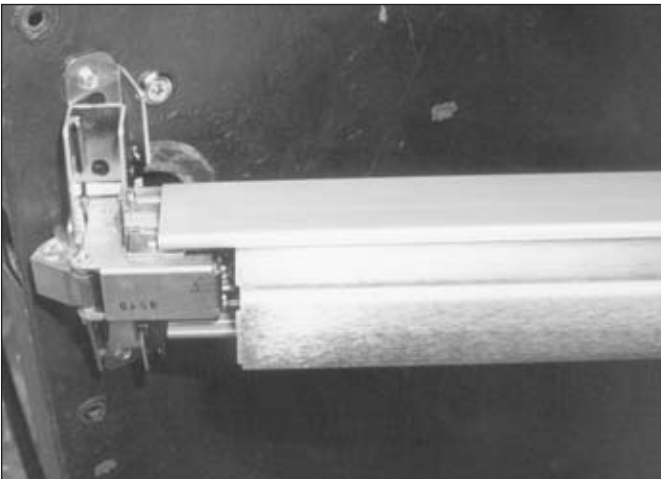
the height I'm going to place the V40. From the photograph you can see that it is mounted dead center of the old lever set mounting. This template is probably the biggest time saving feature of both the Advantex and the Value Series panic hardware installations. Note that I have the template attached to the stop with TEC screws. Where those screws



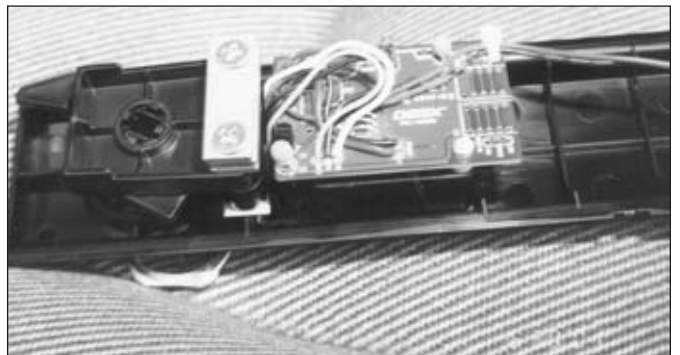
6. The tabs slide easily into the holes on the back plate.



8. The detail of the 99 Strike and V40 back plate.



7. Device before the red warning cover was placed.



9. The CPU board for the V40 alarm.

**D** are, is where I will use the mounting screws from the strike.

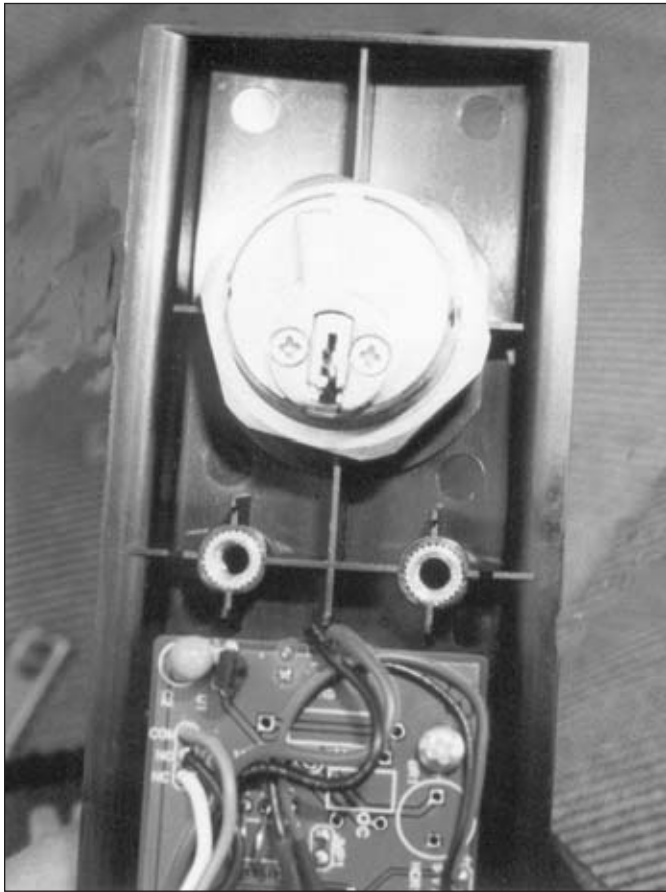
**H** Also notice the small plastic tabs that stick out from the edge of the template. I'm going to show you what they are for in just a second.

**I**  
**P**  
**A**  
**G**  
**E**  
**18** *Photograph 5*, shows the V40's back plate slid over the mounting tabs of the strike locator. Detex's mounting instructions suggest sliding the back plate over the tabs, then holding both parts against the door and door stop and marking your holes for drilling. (See *illustration B*.) I find this easier and faster. Once I have the back plate in position, I drill my holes (and tap or use Rivnuts™ or similar product) then remove the template and remount the back plate and

strike.

In *photograph 6*, you can see how the tabs on the V40 slide easily into the holes on the V40's back plate. Isn't that slick? The device is in place, stabilized and ready to bolt to the door! True, you still have to level the V40, but nothing like trying to mount the ordinary panic device lock mechanism and then attaching the bar and trying to hold it level while attaching it to the door. Believe me, this is a really easy install.

*Photograph 7*, is basically the same shot as the preceding photograph but from a different angle and before the red

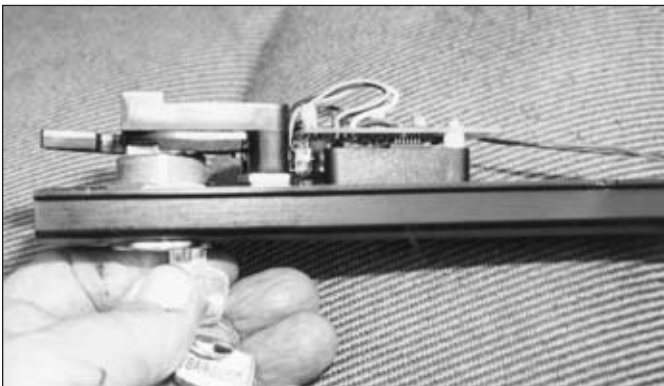


10. A Sargent six-pin mortise cylinder.

warning cover was placed over the aluminum push bar.

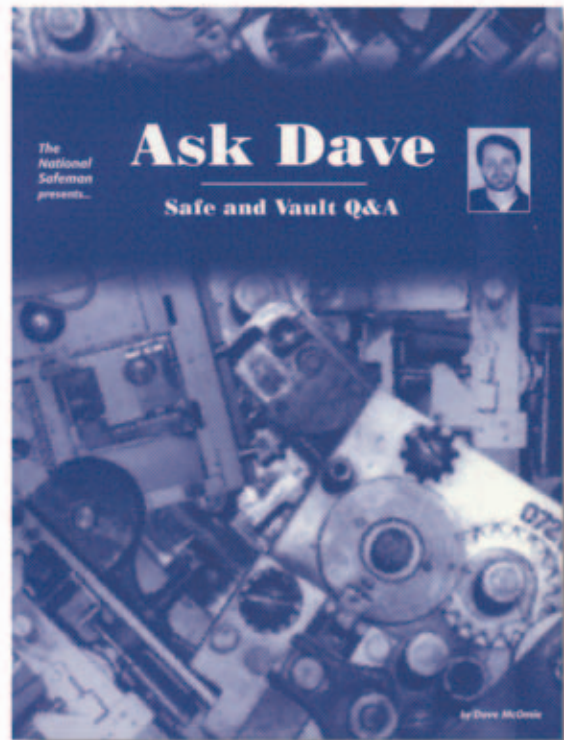
*Photograph 8*, shows the detail of the 99 Strike and V40 back plate and the device itself. You can see the mounting screws and bolts in all three pieces. Look just to the right of the back plate. See the bolts with the finish washers on them? Those bolts are holding the escutcheon and pull handle on the exterior of the door. When using the escutcheon to cover the hole for the old lever set, I had to make sure that the pull handle bolts did not interfere with the back plate mounting.

*Photograph 9*, shows the CPU board for the V40 alarm. Take note of the aluminum spacers above the black switch plate. Those spacers allow you to adjust the height of the switch plate to accommodate various length mortise



11. Checking the operation.

# Ask Dave

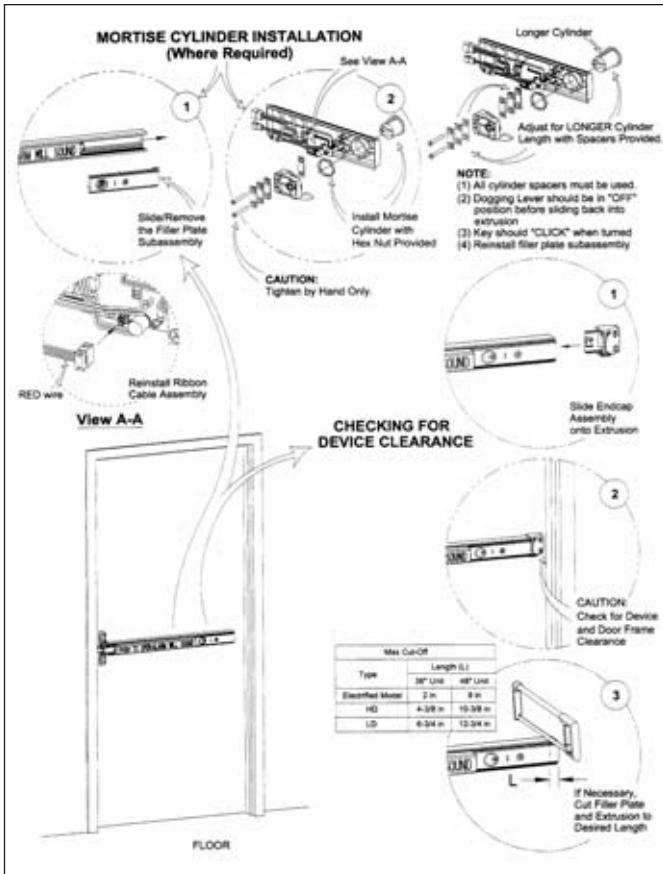


You asked. He answered.  
This is safe and vault  
Q&A with an attitude.

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#AD - 1



**C. Spacers allow height adjustment of the switch plate.**



**12. The completed assembly.**

cylinders. (See illustration C.) For the V40 and the FV40, there are other wiring options available such as integrating the device with the fire alarm, etc.

**NOTE:** The V40 has a key operated dogging device, which the FV40 would not have since fire rated hardware cannot legally be "dogged."

Photograph 10, shows a Sargent six-pin mortise cylinder mounted in the switch/CPU alarm assembly. Photograph 11, shows me checking the operation of the completed mortise installation and switch. Note that the spacers were all placed under the switch mechanism to accommodate the longer mortise cylinder.

Photograph 12, is the completed assembly with all the trim covers, warning label and so forth in place. You may wonder why there is a Latch Guard on the door since the door stop and the dead latching feature of the V40 would prevent someone from "loiding" the lock. If you look back at photograph 8, you will see the holes above and below the latch on the V40 where the Latch Guard had been previously mounted. I used the Latch Guard to fill in the holes and make the door look more intimidating.

One more feature of the V40 is it's also available with a kit for installation on narrow stile doors. I'm telling you, Detex really put some thought into the engineering of this product.

This is just my opinion, but I've installed a lot of panic and fire exit hardware over the years. From a standpoint of speed and ease of operation, Detex's Advantex and Value Series™ are hands-down winners in my book.

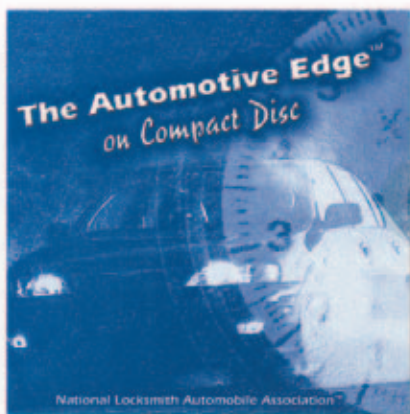
You can buy cheaper, and you can buy more expensive, but from where I sit, I don't think you can find comparable value in any other device in the price range of Detex's Advantex, or Value Series™. Besides, with the Value Series™, there's enough of the "old" to make us comfortable with the new.

Either call your local distributor for pricing and information on Detex's Value Series™ or call Detex at: 1-800-729-3839. Tell 'em "Jake, told me to call".

Y'all take care now.



# AutoEdge



This CD contains over 1,000 pages of automotive locksmith service.

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#AE - CD

D H I PAGE

20

# Key Wizard

by Gordon Maczewski



Keeping track of the key holders in a master key system is critical for maintaining the security and integrity of a master key system. It was with that need in mind that a brand new type of key management software, called KeyWizard™, was developed.

A highly experienced development group, which consisted of locksmiths, a software programmer, and factory master key experts, was assembled to meet with customers and review existing key management software. A partnership was formed, between Medeco Security Locks and Sargent Manufacturing Co., both part of the ASSA ABLOY group, and specifications for new key management software were formulated.

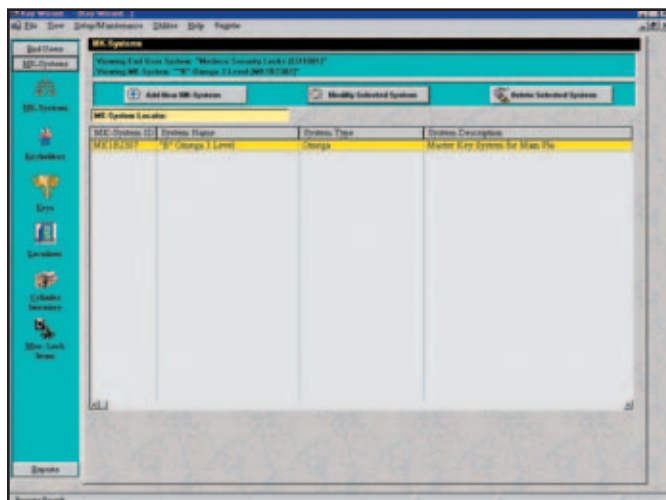
Before the specifications were developed, Medeco, and Sargent first reviewed everything they had learned from providing previous types of key management software. In addition, over one year was spent interviewing customers, reviewing a variety of existing key management software programs and then designing, developing and testing software. KeyWizard™ was launched July 19, 2001.

The developers looked at a lot of existing software and found many of them were difficult to use, with their cluttered screens, and they often lacked functionality or didn't track enough information. KeyWizard™ offers improvements over existing key management software, with uncluttered, easy to navigate screens

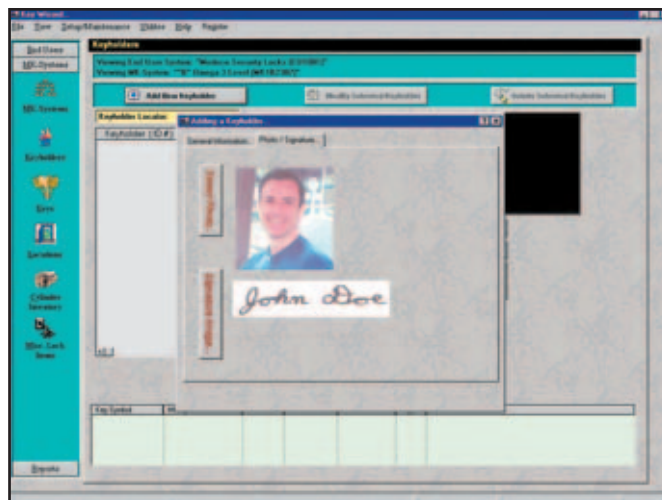
using a Microsoft Outlook type of layout. (See figure 1).

The program is able to track multiple end users and multiple master key systems all in the same program. It is suitable for both retail locksmiths with multiple customers and for institutional users, such as hospitals and universities that may need to track multiple master key systems. While KeyWizard™ was designed specifically for Sargent and Medeco systems, it may be used for other manufacturer's master key systems as well. The software is capable of listing Medeco original angles and Biaxial, single and double cut angles along with key biting numbers.

In addition to tracking eight levels of keying, keyholders, keys, and locations,



1. Easy to navigate Microsoft Outlook, type screens.



2. Keyholder photo and signature enhances security.



KeyWizard™ also allows users to track pinned cylinders that are in inventory. A keyholder import screen allows users to import scanned pictures of keyholders, along with a sample of their signatures, to insure that keys are issued to the proper individual. (See figure 2)

The system tracks key deposits and has a sample default key receipt, that can be printed using either a standard laser or inkjet printer or a smaller format point of purchase printer, such as those used to print credit card receipts. (See figure 3.)

A unique expandable access tree screen allows users to easily see, on one screen, all the keys a person carries and all of the doors those keys will access. This feature makes it easy for supervisors to see what rooms their employees have access to. Some software requires you to toggle between multiple screens to get this information.

Extensive location door hardware screens allow users to track detailed information on such items as primary and secondary locks and cylinders, doors, frames, hinges, door closers, push plates, pull plates, mop plates, kick plates, door viewers and thresholds. (See figure 4) No other program offers this amount of detailed hardware tracking.

One of the unique features of KeyWizard™ is the true logical sorting of standard key coding labels. Many other types of key management software sort special function keys, such as "MAINT", with the master key "MA" and usually sort the change keys as: AA1, AA10, AA11, AA2, AA3, AA4, etc. In contrast, KeyWizard™ places special function keys, such as "Maint", at the beginning of the key list and sorts change keys as: AA1, AA2, AA3, AA4, AA5, AA6, AA7, AA8, AA9, AA10, AA11, etc. This feature makes it easy to keep track of keys and read audit reports. Users have the option of using "Standard Key Coding," "Modified Key Coding" or their own system of labeling keys when entering key label information.

Another unique feature of KeyWizard™ is the maintenance service scheduler. Users are able to schedule routine maintenance tasks such as cylinder lubrication on a one time, weekly, monthly, quarterly, or yearly basis. A pop-up screen will automatically alert the user when maintenance is required. A special report can be printed for both scheduled and completed maintenance tasks.



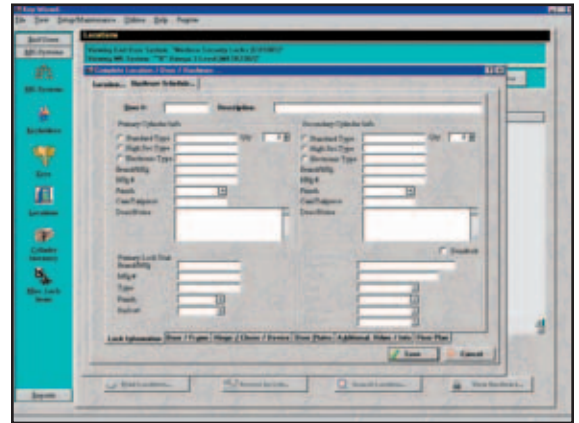
**3. Optional credit card type receipt printer can be used.**

A cylinder inventory screen allows users to keep track of pinned cylinders that are kept in stock. Information such as finish, part number, keyset and location are easily tracked.

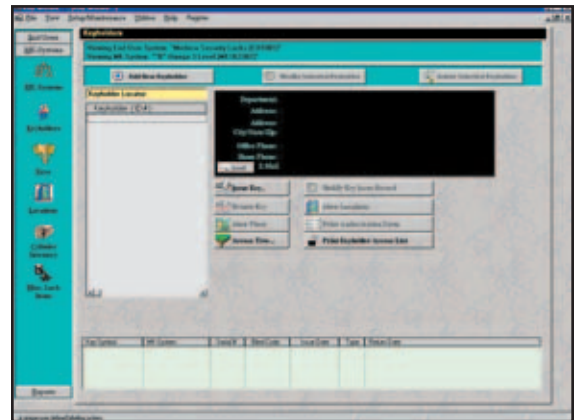
A number of different reports are available on keys, keyholders, locations, master key systems, overdue keys and maintenance service schedules, all of which can be customized by using the extensive query function.

Both an on-screen and printed "Quick Start" guide enable users to set-up and operate the software quickly and easily. In addition, extensive, on screen, pop-up tool tips provide helpful instructions for all major screen fields. Technical support is provided via a dedicated "800" number and is free for the first year. After that, a modest yearly maintenance fee covers technical support and free automatic software upgrades. Support is provided between the hours of 8 a.m. and 5 p.m. Eastern Standard Time.

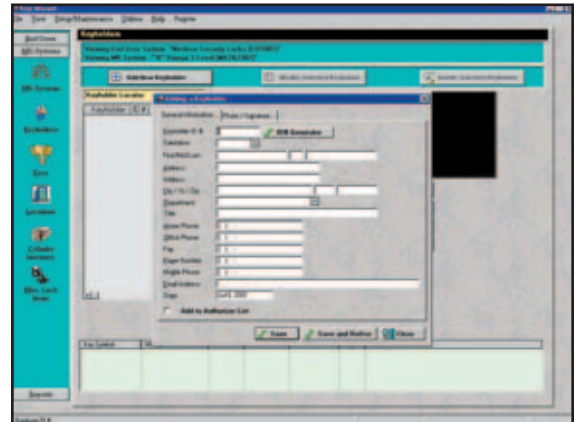
The software requires a Pentium 350 processor or greater, Windows 95 or newer operating system, 32 MB RAM and 7 MB of hard disk space. Network and single use versions are available along with a demonstration disk. Since the software is able to track multiple end users and multiple master key systems, the locksmith dealer version and the end user version are one in the same. The demonstration disk



**4. Comprehensive hardware listing.**



**5. Keyholder listing and key issue screen.**



**6. Detailed key information including bittings.**



**7. Location information.**

is a full working version of the software so users are able to test the full functionality of the program. Demo disks automatically expire and lockup after a 45 day trial period.


To use the program, the following eight simple steps are required:

- *Set up system preferences*
- *Enter new end user information*
- *Enter descriptive field for buildings, departments, cylinder types and finishes*
- *Add new master key system and set levels of keying*
- *Add keyholders and assign authorized individuals. (See Figure 5)*
- *Add keys, key symbols, blind codes, bittings and keyway. (See Figure 6)*
- *Add locations, keys to locations, maintenance schedule and hardware. (See Figure 7)*
- *Issue keys and print authorization forms*

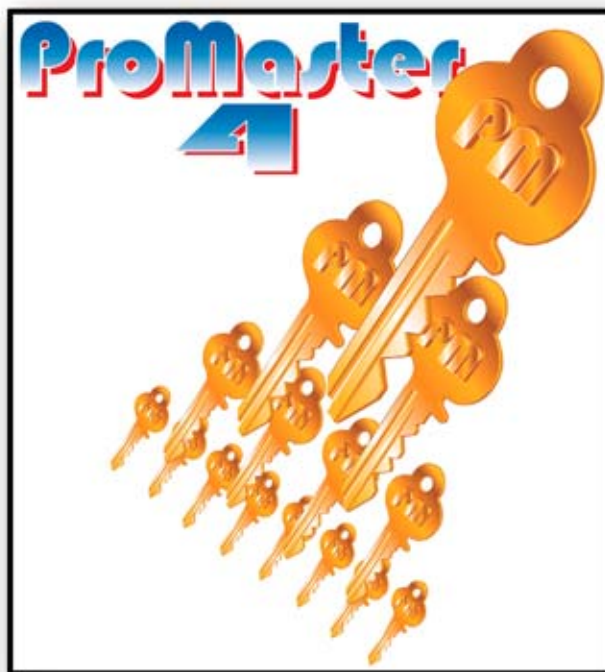
Effective control of the keys for a facility requires the use of a comprehensive system of policies, procedures, record keeping and specialized products which include:

- *Utility patented locks which prevent the unauthorized duplication of keys*
- *A written key control policy which addresses items such as authorization procedures for duplicate keys, key return procedures, key deposits, key storage and handling of lost or stolen keys*
- *Tracking which keys operate particular doors*
- *Tracking what keys each person carries*
- *Periodic auditing of keys issued to keyholders*
- *Getting keys back when a person is no longer associated with a facility*

KeyWizard™ was specifically designed to assist with these tasks by making record keeping more effective and easier to manage.

To purchase KeyWizard™ software or to request a demo disk, contact either Medeco customer service at: 800-839-3157 (USA), 519-888-7000 (Canada), or Sargent customer service at: 800-727-5477. For technical questions or detailed product information contact KeyWizard at: 800-610-1706. Circle 321 on Rapid Reply. 

# ProMaster 4



ProMaster 4 is without a doubt, the most comprehensive and easy to use master-key system management tool available anywhere in the world.

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#PM - 5

# Peaks® 6340 Core for Medeco



1. Peaks 6340 ICore for Medeco.

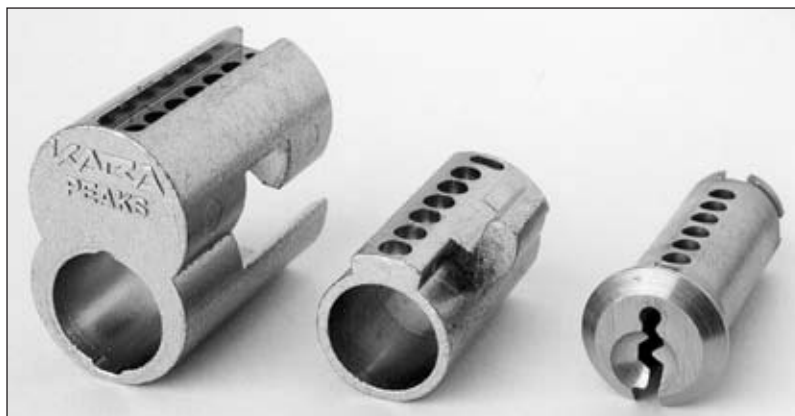
Peaks® 6340 cores to replace Medeco are the newest addition to Kaba's family of affordable high security retrofit cylinders and cores. Peaks® 6340 cores will retrofit 6-pin Medeco 32 series housings to replace either original or biaxial cores. (See photograph 1.)

Peaks® stops unauthorized key duplication with strong patented key control, but without the added cost of UL437. Peaks® original ICore, Corbin Russwin cores, Yale cores, and now Medeco cores, can all be interkeyed with Peaks® mortise, rim and key-in-knob cylinders in one patent protected key system.

Kaba provides the broadest possible retrofit capability without loss of key combinations because all Peaks® cores pin like original ICore. Control keys for all Peaks® cores are also designed like original ICore controls. Special or extended tip blanks are not required.

## Adding Cores to Existing Systems

Since the control key biting is actually a change key biting, any style Peaks® core can be added to an established system of conventional Peaks® cylinders at any time. There is no interference from bittings



2. Peaks 6340 pins like original ICore with a totally separate control shear line.

already in use. There is no loss of combinations due to core design.

Peaks® keys are made on standard code machines including the Framon #2 and KX-1, FRA-2001, the HPC 1200CM, the Ilco Universal and the ITL9000. Code cards for the 1200CM, CPKS1 and CPKS2, are available from HPC.

## Use Standard ICore Pinning

Peaks® 6340 cores have a separate control shear line in all six chambers. They pin exactly like original Best ICore A2 systems with a stack height of 23. (See photograph 2.) New pin kits are not required. For A2 systems, install A series bottom pins and B series top pins. For A4 systems use E series bottom pins and F series top pins.

Original Peaks® pins must always be used. Bottom pins are .003" shorter than ICore replacement pins. (See photograph 3.) Aftermarket pins are not dimensioned to work in Kaba products.

Top load 6340 cores in the usual manner. Install a 3800-00-3004 patent bottom pin and 3800-00-3005 patent top pin in patent chamber. (See photograph 4.)

## Timing Pins

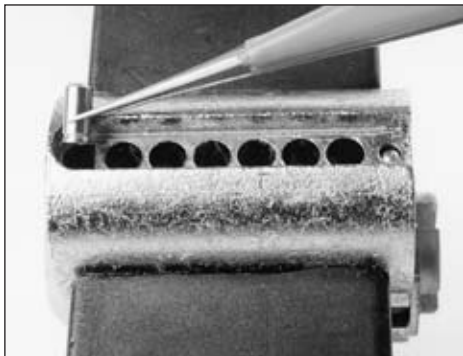
The 6340 series cores have one unique component. A timing pin, part number 6340-00-4102, must be installed in the small hole at the tip of the core. (See photograph 5) The timing pin provides a positive stop for withdrawal of the control key. The new Peaks® universal pin kits contain this pin. Dealers with older kits can order the timing pin separately from their Peaks Distributor.

## 7-pin Spring Cover

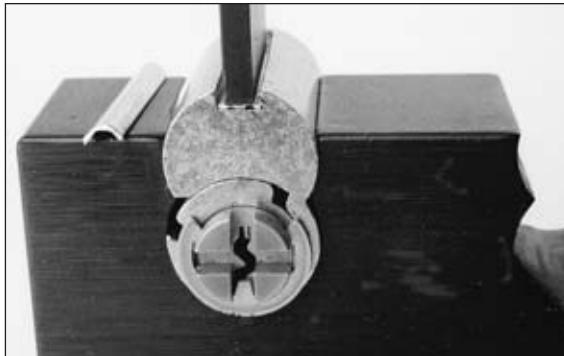
Dry graphite is the factory recommended lubricant and is best applied before installing the springs.



3. Installing patent bottom pin.



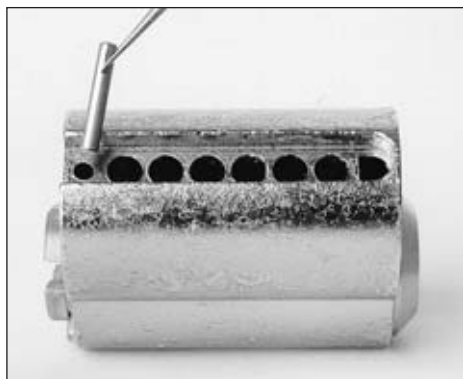
4. Installing patent top pin.



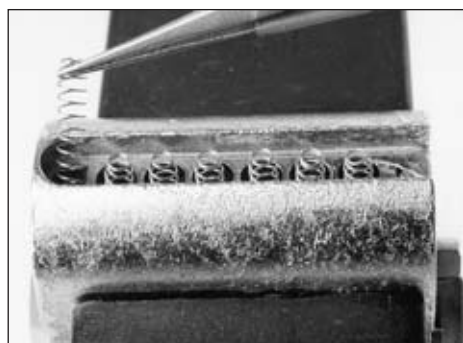
7. With core supported in staking fixture, flatten a 7-pin ICore spring cover with staking tool and plastic or rawhide mallet.

received information on the RetroMax 99 universal key-in-knob cylinder, and other products are in development.

Peaks® provides affordable high security for your customers and repeat business for you. Peaks is the benchmark in patented key control. For more information, contact Kaba at: (860) 621-9727 or your Peaks® Distributor



5. Timing pin creates a positive stop for withdrawal of the control key.



6. Use stainless steel springs.

Use 3800-00-4010 stainless steel tumbler springs in all chambers. (See photograph 6.) The 7-pin ICore spring cover, number 6800-00-2007, is also required to contain the components.

Apply the spring cover with the recommended Kaba tools. The staking fixture supports the core at its waist so that it doesn't become damaged or out-of-round when the spring cover is flattened. (See photograph 7.)

The Peaks® family of patented key control cylinders continues to grow. Peaks® Dealers recently

# How To Re-Key Cylinders



This software simplifies the process of re-keying various types of cylinders.

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#HT - RKC1

# Understanding Electronic Access

Control Part One

by William C. Deutsch



Yikes! Look at the trade magazines and product catalogs that constantly hit your office and you are barraged with new electronic goodies. But unless you are a gadget-freak like me, the only devices you are really interested in are the ones that will build your business. As a professional locksmith, the gadgets that promise you the greatest profit are electronic access control devices.

In this article, I will briefly introduce electronic access control, and then summarize the main types of systems and credentials.

## Why Electronic Access Control?

An electronic Access Control (EAC) system serves three purposes:

- Limiting Access
- Preventing Undetected Entry
- Monitoring Activity.

A well-planned EAC system should complement the master key systems that you already offer by adding capabilities such as time control, audit trails, and fast re-keying. Think about it, every mechanical key you issue works 24/7. So even though the system you designed keeps keyholders out of restricted areas, how much mischief could an unscrupulous employee cause just by entering the building when no one else is around? EAC allows you to restrict access based on time and date.

## Mechanical Locksets Tell No Tales

If your customer suffers a security breach and there are no signs of forced entry, how can you tell who entered a building or when? When you can pull a printed record from every electronic lock in your system, you can always prove who entered, or tried to enter, a given door. Add to this is the nasty, but all too common problem of lost keys. The only way to eliminate the threat posed by a lost key is to re-pin every cylinder it operates. Since this is often expensive and time consuming, many end users will simply live with the risk. Again, this is where EAC shines - your

customers can disable keys themselves in a matter of minutes.

## Types of Access Control Systems

There are two basic types of EAC systems:

- Hardwired
- Standalone

### Hardwired Systems

In a hardwired system, every door is connected back to a computer. Every time someone enters the door, the information is flashed across a computer monitor. In addition, adding or deleting keyholders can be

go smoothly requires skill in handling data cables, installing computer peripherals, basic electronics, and a working knowledge of the specific system you are installing.

### Standalone Systems

As the name implies, standalone systems do not need to be connected to a computer. As a result, they are usually simpler to install and program. They also cost about a third of the price of a hardwired system.

For the locksmith who is just getting started in EAC, these systems are ideal. The learning curve is not so steep, and you will spend much less time installing. (This being said, you should still take advantage of any training courses that the manufacturer offers, and continue to add to your basic electronics and computer skills.)

*Photograph 1*, shows the Medeco Intelligent Lockset. As you can see from the picture, this unit installs much like the Grade 1 locksets you have been dealing with for years. While it still requires a computer to program, you do not have to pull a data cable all the way to the door. When an electronic key is inserted into the reader (which mounts in a 2-1/8" cross bore) the leverset unlocks. In a few seconds, it automatically relocks. The entire transaction is recorded, stamped with a time and date. All of the electronics, including the four "AA" batteries that supply power, mount on the inside of the door.

Since this unit is not hardwired to a central computer, how do you move information in and out of the lockset? If you want to add a keyholder, how does that information move from your PC into the lock?

*Photograph 2*, shows "portable database" keys. They can be used to carry information between a computer and door in the same way that you use a floppy disk to move files between two computers. The Red Setup Key (on the left) carries information such



1. The Medeco Intelligent Lockset.

accomplished with a few keystrokes and the information can be sent to the door immediately. However, these advantages come at a price. Because of the labor and material involved in pulling data cables to every controller, and because of the extra computer hardware required, hardwired systems are expensive. The average cost is around \$3,500 per door.

Also, you should not underestimate the expertise involved in installing a hardwired system. Making the project

as access schedules and a list of holidays observed at the sight. The Blue Program Key (on the right) carries a list of users who are allowed into a particular door. This same key can also be used to pull the audit trail information from the door and load it back into the computer. Once the information is in the computer, you can view it on your monitor, or print a report.

#### Access Control System Components

Now that we have looked at the basic types of EAC systems. Let's start to look at the components that are common to every system. These components are:

- Code / Sample/ Credential
- Input / Reader
- Controller / CPU
- Lock / Release
- Interconnections
- Reports / Response

In this month's article, we will have enough time to look at only the first of those items.

#### Code / Sample / Credential

To gain access, you must first identify yourself to an EAC system. This is done by means of a code,

sample, or credential.

A code is something you know, such as a PIN or password. Many of the popular stand alone EAC systems simply require you to dial a code into a PIN pad to gain access. The advantage



2. Portable database keys.

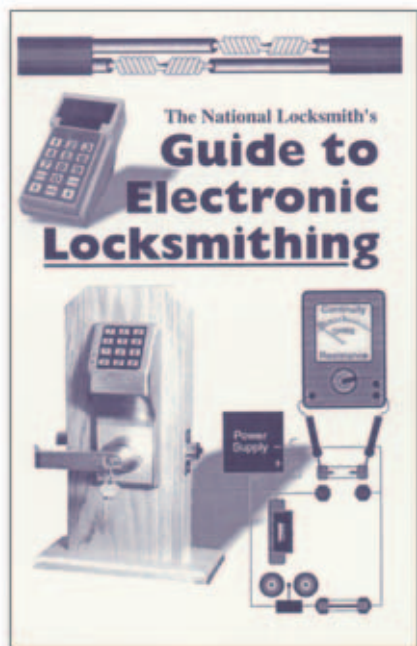
of codes is that they are hard to steal or just "find" lying around. The disadvantage is that you lose key control, since the "key" can be copied by word of mouth.

A sample is something you are. Access control systems that utilize samples are called biometrics. Some

of the biometric readers you may have seen read hand or fingerprints. Others actually scan your retinas. Biometrics are catching on in the computer world. If you use a computer that is connected to a network, you already know that you must enter a password (code) before you can access any information from the server. Now there are plug and play devices that only require you to press your finger against a small reader. One company has even released a mouse that reads your thumbprint when you grab it. If it's not your hand on the mouse, you don't use the computer.

The advantages of biometrics are obvious: it's very hard to steal or lose fingerprints, so biometrics are very secure. But on the downside, biometrics can be expensive, and many folks are still not comfortable giving out their fingerprints and allowing that information to be stored and accessed by someone else. If you were the type of person who always kept the carbon papers from credit card receipts, you'd probably have a low comfort level with biometrics.

Finally, a credential is something you carry such as a card, fob, or key.

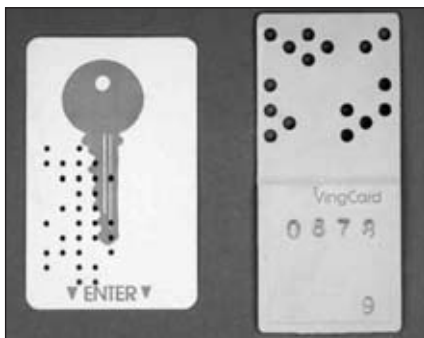


## Electronic Locksmithing

Everyone knows there's big money in selling, installing and servicing electronic security such as mag locks, electronic strikes, and simple access control.

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**3. Hollerith cards.**

Credentials are characterized by resistance to decoding and duplication - low, moderate, or high. The classifications I'm using in this article are taken from the *DOD User's Guide on Controlling Locks, Keys and Access Cards. UG-2040-SHR.*

**Low Resistance**

Low resistance credentials include Hollerith cards, and mag stripe cards. Hollerith cards contain a code formed by a hole pattern. As you can see in *photograph 3*, this hole pattern is fairly easy to copy. Every credit card you own has a dark mag stripe across the back. This stripe holds information in much the same way as a cassette tape holds musical information. The

magnetic stripe can often be duplicated with commonly available technology.

**Moderate Resistance**

Moderate resistance credentials include: metallic strip cards, on which a code is created by a matrix of metal strips; magnetic spot cards, on which a code is created by heavily magnetized spots (hence the name); and optical cards that are designed to reflect infrared light.

**High Resistance**

According to the Department of Defense, two of the EAC credentials that offer the highest resistance to duplication are proximity cards, and contact memory buttons.

Proximity cards do not have to make contact with the reader to work. Each "prox" card contains a small coil connected to a circuit board. The reader generates a magnetic field. When the card passes through the magnetic field, a voltage is created in the coil. This momentarily powers the circuit board and allows it to send a code to the reader. If the system acknowledges the code, it will grant access to the cardholder.

Each contact memory button contains a unique ID number. The



**4. Medeco SiteKeys®.**

tiny chip that forms the heart of the button is encased in stainless steel, protecting it from tampering and damage.

*Photograph 4*, shows Medeco SiteKeys(r). These credentials have high security bitted blades, while the head contains a contact button. When the key is inserted into an access control reader, the controller can read the serial number and decide whether or not to grant access. This "dual credential" allows you to tie high resistance to mechanical and electronic duplication into one key

**Summary**

Now that you've learned some EAC fundamentals, start looking for ways to combine electronics into your master key jobs. The right system should increase the value of master key systems by adding time control, fast re-keying, audit trails, and other powerful features. The SiteLine system can do all of this without adding a second card or credential.

When designing master key systems, pay special attention to those places from which valuable parts and supplies may "walk." Adding EAC to these doors will pay dividends to you and your clients.

Some of these doors are:

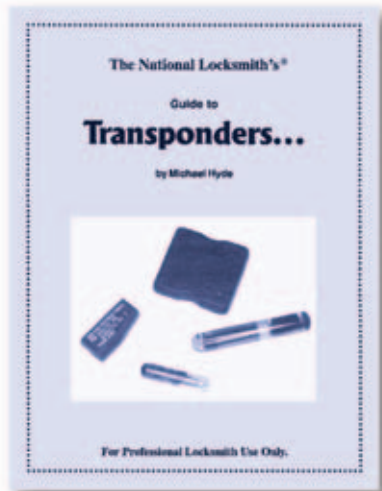
- Linen closets
- Tool rooms
- Food storage areas
- Computer/peripheral storage rooms
- Electronic assembly areas
- Office supply closets
- Drug cabinets

Try to get an estimate from your end-users as to how much money they lose annually from inventory shrinkage. This will be a powerful argument for adding electronics to high-loss areas.

*William C. Deutsch is the Lead Technical Support Engineer for Medeco High Security Locks.*



# TNL's Guide to Transponders



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# THE CASH STATION

by Mark Daniel

## NCR ATM 0101

**ATM Manufacturer:**  
NCR ATM

**ATM Model #:**  
Class 5885 Model 0101

**Safe Size:**  
22" Wide by 35-1/4" High

**Door Size:**  
20-7/8" Wide by 34" High

**Handle Type:**  
L Style



**Handle Location:**

26-1/4" down from top of door and 4" Right from door edge (opening).

**Handle Rotation:**

Clockwise to open

**Dial Location:**

11-3/4" Down from top of door and 9" Right from door edge (opening).

**Number of Door Locking Bolts:**

One 17" steel bar

**Door Locking Bolt Locations:**

9" through 26-1/4" down from door top. 1-7/8" back from door surface

**Door Locking Bolt Diameter:**

5/16"

**Door Thickness to Bolt Center:**

1-7/8"

**Door Thickness to Lock Case:**

1-3/4"

**Door Thickness to Back of Lock:**

2-7/8"

**Combination Lock Type:**

LaGard 3332





## NCR ATM 0101

**Combination Lock UL Rating:**

Group 2

**Combination Lock Description:**

3 wheel, key change

**Combination Lock Case Thickness:**

1-1/8"

**Number of Wheels:**

3

**Combination Lock Driver Location:**

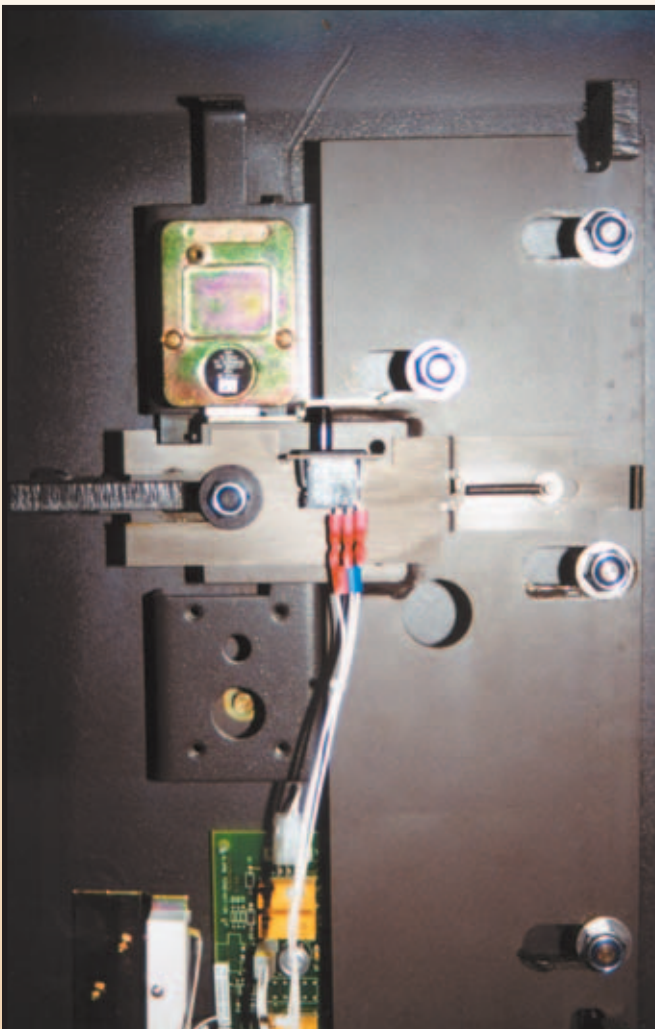
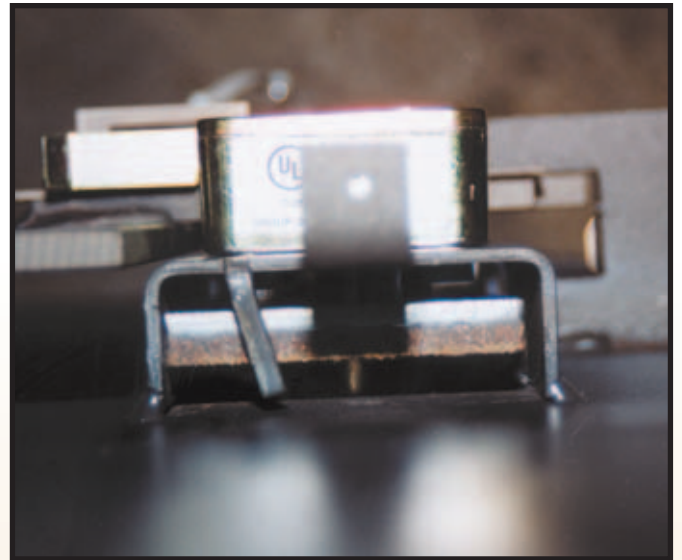
Rear

**Combination Lock Handing:**

Vertical Down (VD)

**Drop-In Location:**

72



**Forbidden Zone:**

0 - 20

**Combination Lock Opening Procedures:**

4xL to first number

3xR to second number

2xL to third number

1xR until dial stops.

**Combination Lock Drill Point:**

7/8" from dial center at 72. Align wheel gates at lever fence

**Combination Lock Relock Trigger Type:**

Wire spring, activated when combination lock cover is removed or punched.

**Combination Lock Relock Trigger Drill Point:**

7/8" right of dial center, 1-5/8" down. Hook with a wire and pull towards front of safe

**Combination Lock Changing Procedures:**

1. Dial the existing combination to the changing index.

2. Insert the proper change key and turn it left 1/4 turn.

3. Dial the new combination to changing index.

4. Turn the change key right 1/4 turn and remove it.

5. Test the new combination at the opening index.

**External Relock Device Type:**

None

**Special Notes:**

There is a 7/16" piece of hard plate which is free floating in a cavity welded on back of the door which doubles as the lock mounting plate.



# Unlocking the Acura MDX and CL

By:  
**Tony  
Vigil**

Acura released several new vehicles for the 2001 model year. The MDX is Acura's new entry into the SUV market. The MDX has been proclaimed the SUV of the year, even though most real truck enthusiast would probably be disappointed in the car like look and ride of this vehicle. In reality the MDX is more Mini van than SUV. (See photograph 1.) In fact the MDX is built on the same chassis as the Honda Odyssey Mini Van. Honda and Acura share many of the same platforms in there vehicles since Acura, although a separate entity, is actually a division of Honda.

We will be unlocking the MDX using the High Tech Tools number 26

use of many tools of this type. The unique shape of this tool lets it bypass the shielding and unlock this automobile quite easily.

First insert a Strip Saver and wedge to create sufficient working room to insert the tool. (See photograph 2.) Creating sufficient working room on this vehicle is not a problem since the weather-stripping is not as tight as on other vehicles. Lower the tool into the door to get under the door lock button and the plastic shield. (See photograph 3.)

Lifting the tool at a slight angle diagram 1is all that is needed to unlock this vehicle quickly.

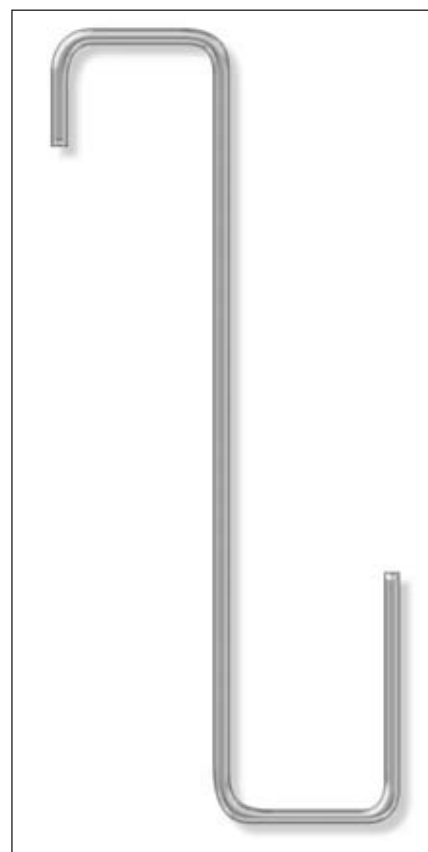
Another new entry from Acura this year is the new 2001 Acura CL. (See photograph 4.) The CL has a very similar lock mechanism



1. The Acura MDX.

tool. (See illustration A.) This tool is used on many vehicles with vertical door lock buttons. In most cases where this tool can be used, there is no shielding under the door lock button. The tool comes strait up under the button and lifts. The MDX however has a plastic shield under the door lock button, which prevents the

to the MDX, even the plastic shielding is very similar. The difference exists mainly in the door panel and how it sits on top of the shield. Because of this difference we will be using the



A. The High Tech Tools number 26 tool.



2. First insert a Strip Saver.



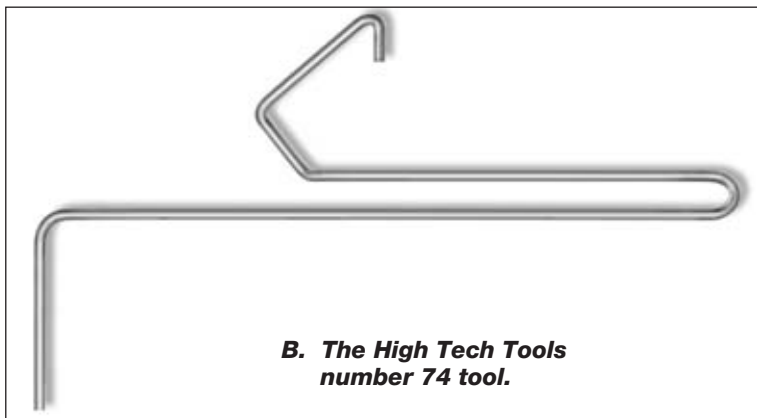
**3. Lower the tool into the door below the lock button.**

High Tech Tools number 74 tool. (See illustration B.) This tool is designed to come in on the inside of the vehicle and pull up the door lock button.

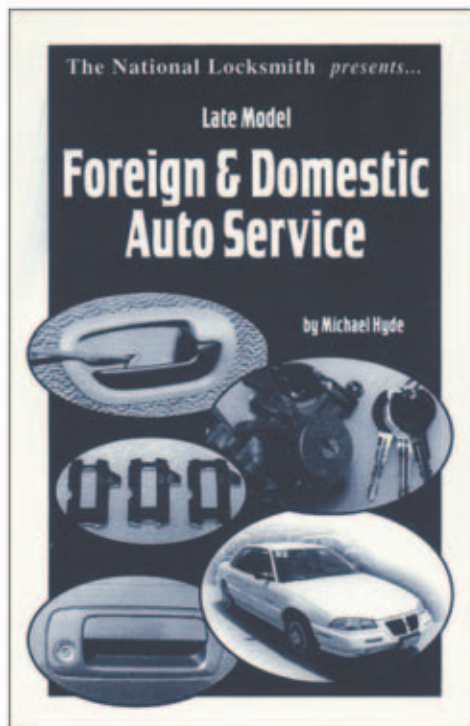
First create sufficient working room between the glass and the weather-stripping. Lower the tool into



**4. The 2001 Acura CL.**



**B. The High Tech Tools number 74 tool.**



# Foreign & Domestic Auto Service

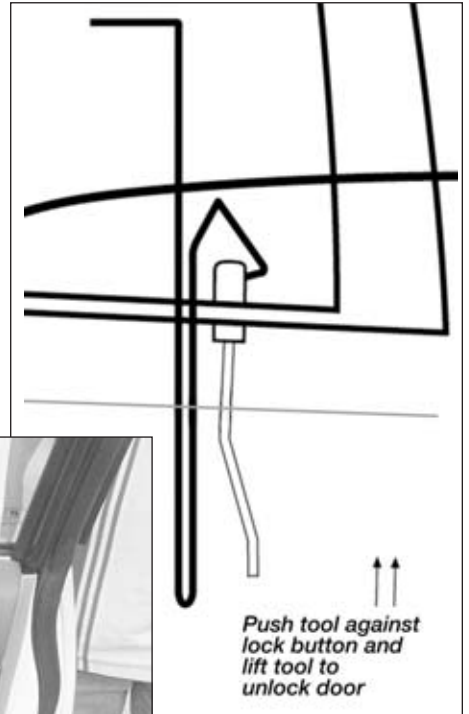
This book represents the best work of Automotive Locksmithing guru Michael Hyde, author of the famous AutoSmart.

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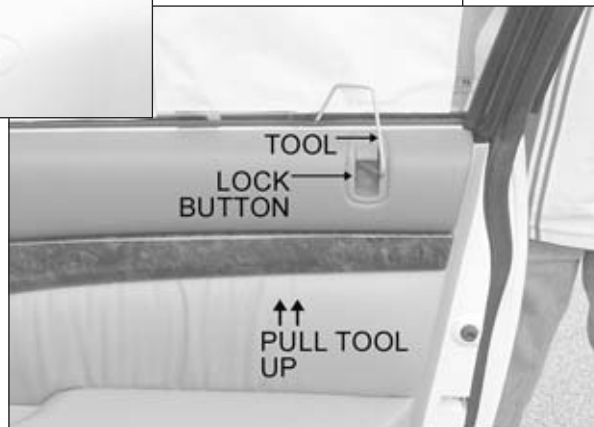


For more formation contact High Tech Tools, 1400 SW 1 Street, Miami, FL 33135. Phone: 800-323-8324, 305-649-7014; Fax: 305-5410074; Web: www.highteertools.com.



**5. Lower the tool into the door below the hole in the inner door frame.**

the door below the hole in the inner door frame to bring the tool up on the other side. (See photograph 5.) Carefully bring the tool up and out on the inside of the door. (See photograph 6.) Lift the door lock button with the tip of the tool to unlock. (See illustration C).



**6. Bring the tool up and out on the inside of the door.**

**C. Lift the door lock button with the tip of the tool.**

# 2002 AutoSmart™



Major changes, additions and revisions to the AutoSmart Book™ have been made, and the 2002 AutoSmart™ is now available!



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# TECHNITIPS

## YEAR-END PRIZES



**Grand Prize**

Silca Bravo Duplicator



**1st Prize**

HPC's 1200PCH  
Punch Machine



**2nd Prize**

Mas Hamilton's  
PowerLever 2000



**3rd Prize**

Curtis 2200 Duplicator



**4th Prize**

SDC Magnetic Lock,  
Keypad and Exit Switch



**5th Prize**

Securitron 12-Volt Unlatch Plug in  
Trans & Touchpad Retail Value \$650



**6th Prize**

LaGard "SmartGard"



**7th Prize**

Detex Advantex



**8th Prize**

Arrow 400 Series Alarmed  
Exit Device & S-75 Mounting  
Plate Kit for Narrow Stile  
Aluminum Doors



**9th Prize**

\$500 in BWD Products



**10th Prize**

\$500 in ASP Auto Locks



**11th Prize**

\$500 in Strattec Auto Products



**12th Prize**

Tech-Train "Jiffy Jack"



**13th Prize**

Sargent & Greenleaf 6120  
Electronic Safe Lock



**14th Prize**

High Tech Tools  
2000 Pro Set



**15th Prize**

Slide Lock's Master "Z" Tool Set



**16th Prize**  
 ESP Products Sampler



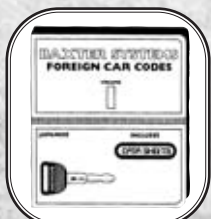
**17th Prize**  
 Major Manufacturing's  
 HIT-111 Drill Guide



**18th Prize**  
 Abus Padlock's Marine  
 Padlock Display (\$120 Retail)



**19th Prize**  
 MBA USA, Inc.  
 Falle Pick Set



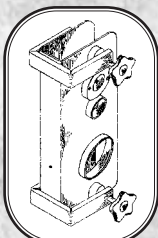
**20th Prize**  
 Baxter JV-1 & JV-5  
 Code Books



**21st Prize**  
 Sieveking Products  
 Squeeze Play



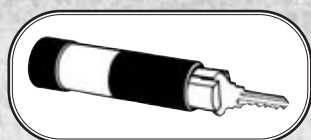
**22nd Prize**  
 Rodann's RV500 Wireless  
 Door Annunciator System



**23rd Prize**  
 A-1 Security Manufacturing  
 Installation Jig



**24th Prize**  
 Keedex Sampler



**25th Prize**  
 Framon  
 Impressioning  
 Handle



**26th Prize**  
 Gator Tool Multi-Purpose  
 Facecap Tool

**Tips Start  
 on Next Page** →

**These Prizes  
 Awarded Each  
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- **BWD Automotive Ford or GM Kwikit**
- **Wedgeco™ Key Extractor Kit**
- **Strattec Racing Jacket**
- **HPC Air Wedge™**
- **Sargent And Greenleaf 4400 Series Safe Deposit Box Lock**
- **A-1 Security Products**
- **ILCO Key Blanks (100 Blanks)**
- **Keedex "SPIN OUT" Screwdriver**
- **Tech Train Training Video**
- **Sieveking Products Gm E-Z Wheel Puller**
- **Major Manufacturing Products**
- **Slide Lock's "Z" Tool Opening Set**
- **The Sieveking Auto Key Guide**
- **Jet Key Blanks (100 Blanks)**
- **High Tech Tools**
- **LaGard Combo Guard**

**Send in your tips, and win!**

**How To Enter**  
 Send a tip on how to do any aspect of locksmithing. Certainly, you have a favorite way of doing something that you would like to share with other locksmiths. Write your tip down and send it to:

*Jake Jakubowski, Technitips Editor,  
 The National Locksmith  
 1533 Burgundy Parkway  
 Streamwood, IL 60107-1861*

*Or send your tips via  
 E-mail to: Natlock@aol.com*

**Rules & Regulations**

Each tip submitted must include your full name, street address (no P.O. Box numbers), city, state, zip code, phone number, fax number or e-mail address.

**Every Tip Published Wins**

If your tip is published you will win one of the monthly prizes listed. At the end of the year, we choose winners from all the monthly tips published, that will be awarded one of the fabulous year end prizes. All you have to do to win is enter.

Prizes are arranged according to suggested retail price value.

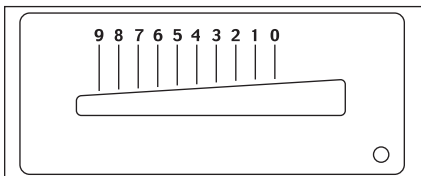


**BWD KWIKIT WINNER:  
 Arrow Key Gauge Tip**

We sell a lot of Arrow locks in our business and I've often been annoyed over the fact that there is not an Arrow key gauge to read depths on keys. Of course, on original keys, the depths are stamped on the key, but when I have a duplicated key to work with, there are no markings.

To solve this problem, I utilized my Schlage key gauge and modified the back of it to read Arrow depths. (See illustration A.)

Using a set of Arrow depth keys



**Illustration A.**

that I cut 0-9, I inserted each key and scribed a mark at the point where the flat of the cut fit snugly into my key gauge. I did this with all ten depths and then used my number stamping set to indicate the numerical value of each mark.

Now I can read the depths on Arrow blanks quickly and easily when necessary.

*Tony Wiersielis  
 New Jersey*



**WEDGECO KEY  
 EXTRACTOR WINNER:  
 Making A Good  
 Tool Better**

A couple of years ago, I purchased a Sectorator-GM tool from Advanced Locking Systems. I have used this tool to take standard bolt-in ignitions apart and it has been a real time saver for me.

This tool requires the use of a crescent wrench to tighten two hex head bolts that cause the tool to hold an ignition in place. I decided that I could save time and eliminate the use of the crescent wrench. I did this by purchasing two large wing nuts from my local hardware store and having them welded to the heads of the hex nuts.

Now I can tighten the bolts by hand (they really don't have to be that tight to hold the locks in place) and service the locks as necessary. The wing nuts have saved me time, eliminated the need for a crescent wrench and cost me very little.

*Marc Grizzard  
 South Carolina*

**A Few Words From Jake...**

I can't believe how fast this year is going by. Here it is September and I'm not even sure what happened to July and August! I do know one thing though, October is just around the corner and "The Door Hardware Institute (DHI)" is having their convention and show in Baltimore the first weekend of October.

Some of you may remember that I did an article on DHI in April of this year. Here's your opportunity to see the show for yourself. For those of you that live within easy driving distance of Baltimore it would be worth your while to visit the DHI show. I'll be there at The National Locksmith booth, so if you go come on by and see me.

Also at DHI, I will be introducing my Real-E-Z-Latch®, which is a really neat universal retrofitable latch for toilet stall doors. It's really something you should take a look at. You can also visit my web site at: [www.realezlatch.com](http://www.realezlatch.com) and get a preview of this product there. I know this sounds like shameless commercialism, and it really is, but you're going to have to consider it my tip to y'all this month because the latch is a great way for you to make money.

Okay, here's one more tip from me to you.

There's a new tool on the market that can make you some quick money. The Hinge Adjustment Tool will correct many sagging hinge problems on hollow metal or metal doors. To fix a sagging hinge, just slip the tool over the hinge (with the door closed) and open the door until it begins to bind. Pull the door just a tad bit past the bind point and then close the door. Remove the tool and try the door.

In most cases you will find that the tool will quickly and easily corrects sagging hinges and misaligned strikes in just a couple of minutes, and can add ten, twenty or thirty dollars to your ticket.

The hinge Adjustment Tool is available from Lockmasters at: 800-654-0637. Tell them Jake told you to call.

See y'all next month.



**by Jake  
 Jakubowski**



**STRATTEC WINNER:  
 The Tool That Rules**

Like a lot of locksmiths, I carry tools in my shirt pocket. A couple of small screwdrivers, a pen for writing up invoices and for me, the most important tool of all - a 6" stainless steel rule with a clip on it. (See photograph 1.)

I use it to measure the backsets for locks, to measure the thickness of doors, the diameter of edge bores and a dozen other measuring tasks everyday.



**Photograph 1.**

I also use the square end to open packages, boxes from UPS and as a paint scrapper around locks and mortise sets that have been painted over by the customer.

One of my favorite uses for this rule is to separate the weather-

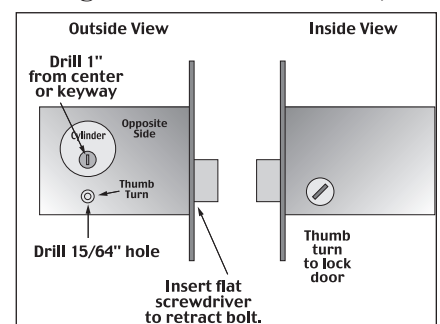
stripping from the windows where it often sticks together, preventing me from inserting my opening tool into the door of the car I'm trying to open. The rule is stiff enough and thin enough to slide down the window and separate the weather-stripping without doing any damage to the rubber.

*Mike Swanson  
 Illinois*



**HPC WINNER:  
 Bypassing A  
 Sargent 4870**

The Sargent 4870, through 4879 series deadbolts, can



**Illustration B.**

present an opening problem when they won't pick or have a high-security cylinder in them. Here's a simple bypass method that I learned to quickly get one of these locks open.

If you look at *illustration B*, you will see how by drilling a hole, 1" down from the exact center of the keyway (use a 15/64" bit) you expose the thumb turn actuator. Simply insert a small, flat bladed screwdriver and throw the bolt.

Repairs can be effected with almost any type of guard ring or scarplate.

*Michael Maldonado  
 New York*

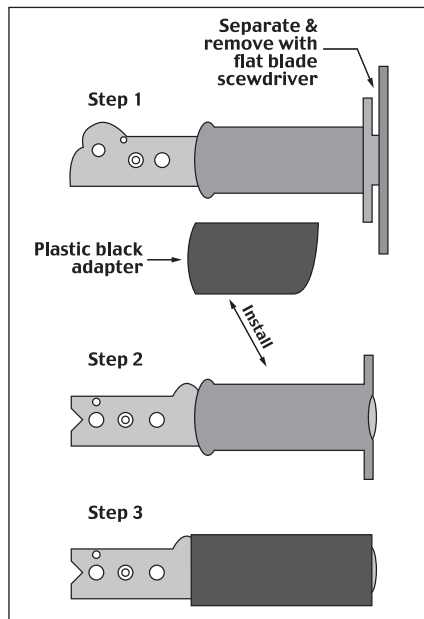


**SARGENT & GREENLEAF WINNER:  
 Making A Drive Bolt**

After installing Kwikset deadbolts in several standard wooden doors, the customer asked me to install another deadbolt on a mobile home. The door was a metal door and I did not have any drive-in bolts on the truck.

I took a standard Kwikset bolt out of the box and noticed that the faceplate was pressed on over the bolt body. I used a flat blade screwdriver to gently separate the faceplate from the bolt body and slid the faceplate off of the bolt.

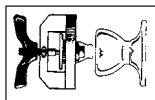
Next, I utilized a black plastic adapter from a Schlage package to convert the regular KW bolt into a drive bolt. (*See illustration C.*) I simply slipped the adapter over the bolt body, slid it as far forward as it would go and I had a Kwikset drive-in bolt!



**Illustration C.**

The Kwikset bolt with the adapter on it fit snugly into the edge bore and the installation was complete!

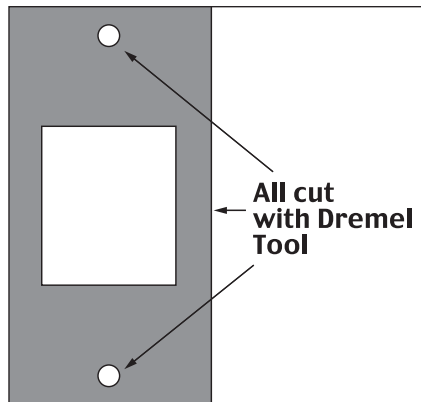
*James East  
 Texas*



**A-1 SECURITY PRODUCTS WINNER:  
 Clean Strike Mortise Tip**

Often, when mortising for the strike plate (particularly the heavy-duty Schlage strike plates that require extra deep mortising), I find that due to the thinner boards used today in construction, the wood will frequently split. This causes an unsightly looking install and it is difficult to repair so that you cannot tell the wood split. Not to mention, an unhappy customer.

What I do to prevent this from happening is use my Dremel® Tool with the small saw blade and outline the areas that I want to mortise. (*See illustration D.*) I use the saw blade to cut deeply for the bolt area mortise and just the thickness of the strike plate in the other areas.



**Illustration D.**

Then using a good, sharp, chisel, I clean out the wood in the areas that I have outlined with my Dremel(r) Tool, getting nice, clean mortises with no cracks and unsightly chips. By using this method, I also get a good, snug, fit around the strike.

*Larry Kanzer  
 Pennsylvania*



**ILCO KEY BLANKS WINNER:  
 Impressioning Tip**

I was taught to smoke a blank with a candle flame when I wanted to impression a key. It never worked well for me because the soot kept smearing and I would lose my marks.

I found that red nail polish on the edge of the key blank which dries fast, gives me great marks and has speeded up my impressioning times.

## Dave McOmie on Vault Doors Vol. 1 & 2

These openings can be a nightmare, but not when you bring Dave McOmie along with you on the job.

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I simply put the nail polish on the edge of the blank, let it dry for a few seconds and insert the blank in the lock, jiggle it a few times and the marks are as plain as day.

*Ron Pallach, Jr.  
 Illinois*

Editor's Note: Ron, thanks for the tip, I know we've used a similar tip in the past, but I thought it was time to run that by my readers again. You can also use a Magic Marker, Sharpie or other felt pen to cover the blank with black ink. Marks show up real well that way too. And, the ink dries faster



**KEEDEX WINNER:  
 Multi-Purpose Tool Tip**

The tool in *photograph 2*, is a combination of two products: A lock set spanner wrench/poke tool, for tightening the rose on key-in-knob locks, and a Kwikset cylinder removal tool. I have drilled a small hole in each and fastened them together with a PopRivit. This modified tool serves five purposes:

1. Remove the cylinders from Kwikset key-in-knob sets.
2. Turning the spindle and



**Photograph 2.**

releasing the spindle retainer of Kwikset locks.

3. Depressing the knob retainer on all sorts of knob sets.

4. For tightening and removing the roses on various knob sets.

Including: Yale, Corbin, Russwin, etc.

5. The two tools are easy to spot in the most crowded toolbox.

You can probably find another half dozen uses for this tool as well.

*Ben Marshall  
 Florida*

# How To Pick Locks



With both learning software and tool set, you'll have everything you need to learn and perform the art of skilled lock picking.

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**TECH TRAIN TRAINING  
 VIDEO WINNER:  
 Oddball Plug  
 Follower Tip**

Many times I come across oddball cylinders that I do not have a standard plug follower for. Most often this occurs when I have to work on foreign cylinders that use look alike key profiles similar to Kwikset and Schlage. I found that I have followers for these right in my own toolbox!

I have a set of 1/4" drive deep well metric sockets (from 4.5mm to 13 mm) and find that that is a good range that lets me find a plug follower for nearly any oddball cylinder I might encounter.

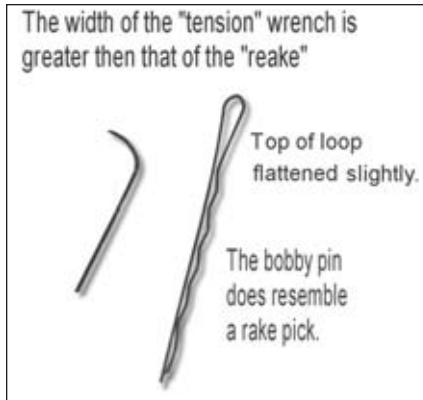
I have used the old trick of using a drill bit, but I like the sockets better. I have found that most of the foreign cylinders use either a 7, 8 or 9 mm socket.

*Jim Heffner  
 North Carolina*



**SIEVEKING  
 PRODUCTS GM  
 E-Z WHEEL  
 PULLER WINNER:  
 Bobby Pin  
 Picking Trick**

Recently I opened an electronic Sentry safe with the help of Bill



**Illustration E.**

Tiner's tip in The National Locksmith. Once I had the unit open, I discovered a locked inner drawer and no key available to open. I didn't even think about the possibility of there being a locked inner compartment in this safe and didn't have my picks with me!

While trying to decide what to do, I remembered all those police/detective shows I watched on TV when I was a kid and wondered if a bobby pin could really be used to pick a lock.

Figuring it was worth a shot, I located two bobby pins (one big one and one smaller one). I stripped off the plastic coating on the ends of both bobby pins. I straightened the large

bobby pin out, cut off about an inch or so in length and bent one end to use as a tension wrench.

The one side of the smaller pin does resemble a rake and I flattened it out a little to make it fit the keyway better. (See illustration E.)

A little tension with the "tension" wrench and a little raking with the flattened bobby pin and the lock was open.

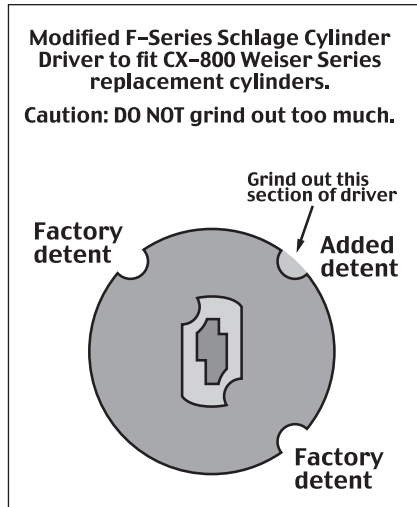
Allen Mendrin  
 California



MAJOR  
 MANUFACTURING  
 PRODUCTS  
 WINNER:

**Weiser/Schlage Conversion**

I had a request to rekey seventeen rooms and add them to the master key system in a senior's complex. The customer had the new Schlage F series leversets that they wanted rekeyed. The problem was that the complex was on a Weiser master key system and of course, they could not be cross-keyed. When I told the customer this, they went back to the contractor to get the locks exchanged and were told the contractor could not (or would not) get the lever sets exchanged. The customer was ready



**Illustration F.**

to order new lever sets and I suggested that there might be a cheaper way to resolve the problem.

I ordered seventeen Weiser CX-800 replacement cylinders which I thought would be interchangeable with the Schlage F series lever set cylinders. Wrong!

The F series cylinders had a driver on the back and not a tailpiece!

Illustration F, clearly shows how I modified the Schlage driver to work in the Weiser cylinders.



# IC Cores: Small Format

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First I removed the driver from the back of the Schlage cylinder. If you look at the illustration you can see two detents (one at the top left and one at the bottom right). These are the factory detents that are held in place by the cap-retaining pin. Neither configuration would allow me to utilize the Schlage driver without some sort of modification since the cap-retaining pin on the Weiser cylinder is located at the top right quadrant.

I removed the Schlage driver from the cylinder and placed it in my vise. Using my Dremel® tool, I carefully cut a third detent in the driver as you can see in the illustration.

I removed just enough material to allow the Weiser cap-retaining pin to clear the driver and yet stop it from rotating. After that it was simply a matter of reassembling the Weiser cylinder (with the Schlage driver in it) and inserting the cylinders into the outside lever of the Schlage F series lever set locks.

*James A. Bradshaw  
Canada*



**SLIDELOCK'S "Z" TOOL  
 OPENING SET WINNER:  
 Lost Key Search**

I have established a procedure for all lost automobile key calls that I

receive which turns up the missing key about 20% of the time. The nice thing is, it only takes about two minutes of my time and can save me lots of grunt time making a key for the car.

I look for the key under the floor mats, between the seats, under the seat, above both visors, in the ashtrays, in the glove box and under and around the car on the outside.

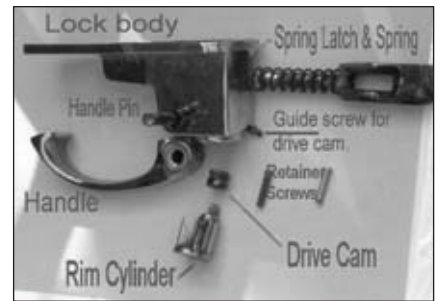
I also check the owner's manual for a code, stickers in the glove box with the code, tags with the code of a spare key the customer has forgotten. If I don't find the key in any of those places, then I use whatever method called for to generate a key. However, if I do find the key, I want you to know it is a most satisfying feeling at 2:00 in the morning to quickly be on my way home!

*George Steiner  
Nevada*



**1995 THE SIEVEKING AUTO  
 KEY GUIDE WINNER:  
 Deadlocking Spring  
 Latch Tip**

A customer was restoring a late model 1940's Ford refrigerated beer delivery truck and needed keys



**Photograph 3.**

made for the deadlocking spring latch that secured the back door.

As you can see in *photograph 3*, the lock was a horizontal handle with a rim cylinder mounted flush into the lock body. I picked the lock and opened the door on the two ton refrigerated body. That allowed me to remove the lock mechanism from the door.

The cylinder was a Keil rim cylinder that used a 1079AB key. Once I had the rim cylinder out of the lock mechanism, it was an easy task to remove the plug and decode the depths and cut a working key.

While I had the lock off the truck's door, I decided to disassemble it and check for worn, broken or malfunctioning parts. Surprisingly,

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this fifty-plus, year-old lock was in excellent shape.

In the illustration you can see all the main components of the mechanism. The drive cam is operated by the tailpiece on the rim cylinder. There is a groove that spirals around the drive cam and follows the drive cam guide screw (see arrow). It is the guide cam that pushes against the spring latch and keeps it from retracting when in the deadlocked mode.

This was a very interesting project. The only thing the old lock parts required was a little cleaning and lubrication before I reassembled the mechanism.

*Don Dodson  
 North Carolina*



**JET KEY  
 BLANKS WINNER:  
 Titan First Cut Tip**

When duplicating Titan and some old GM keys, many locksmiths ignore the need to square off the first, or number one cut. If their duplicator does not have a flat sided cutter on it like the RF 23, they often resort to hand-filing that first cut (if anything at all) to get the vertical edge needed. Without that sharp first

cut these keys often are "hard" working keys.

What we do is copy the key as we would any other and then move it over to our slotter machine and copy the first half of the first cut on it. That gives me a nice factory-like look and any easy working key every time.

*Leonard Downing, CPL  
 Oregon*



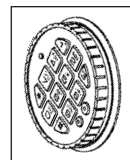
**HIGH TECH  
 TOOLS WINNER:  
 Torpedo Level  
 Trick**

I never use a template when installing a lock set. I have a Torpedo level that I have marked and filed 2-3/8" and 2-3/4" backsets on. On the other side of the level I have filed marks for a 1-3/8" and a 1-3/4" thick door.

All I have to do is place the end of my level against the edge of the door and mark the proper backset. Then I simply move the level to the latch edge of the door and mark my edge bore location.

It's quick, accurate and no fumbling with paper templates or tape.

*J. Christie  
 North Carolina*



**LAGARD WINNER:  
 Remember  
 The Tips**

Recently, I was on my way to an emergency lockout and while driving through a very heavy thunderstorm, my truck's engine drowned out and I was stuck! I grabbed my cell phone to call the customer and the battery was dead! Not a good day.

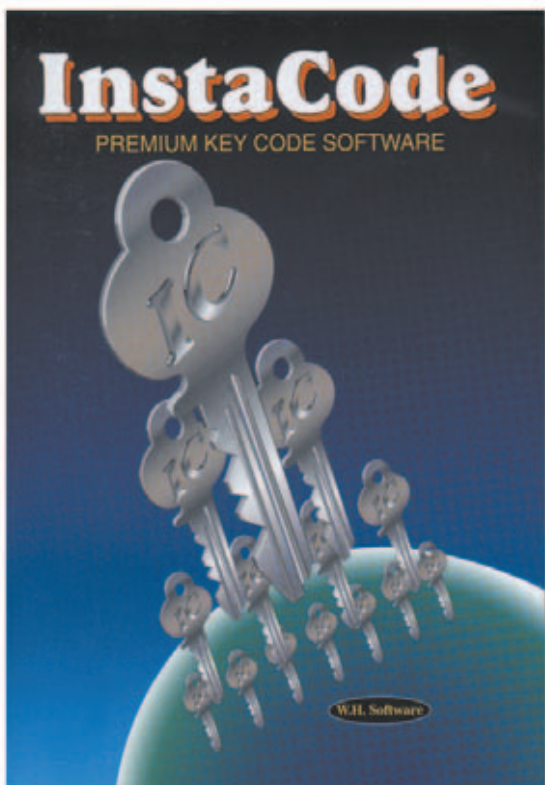
Since I was out in the middle of nowhere, I had to come up with a solution.

I remembered reading a tip that you published a long time ago about spraying wet wires and the distributor cap with WD-40.

I did it and it worked. Soon thereafter I met my locked out customer and got them on their way, after only a slight delay.

My tip? It not only pays to read the tips, it pays even bigger dividends when you remember what you've read and use it!

*Pete Gamble  
 North Carolina*



# InstaCode 2002

InstaCode 2002, the latest release of InstaCode, includes over 5000 code series covering general/utility, padlock, vehicle and motorcycles.



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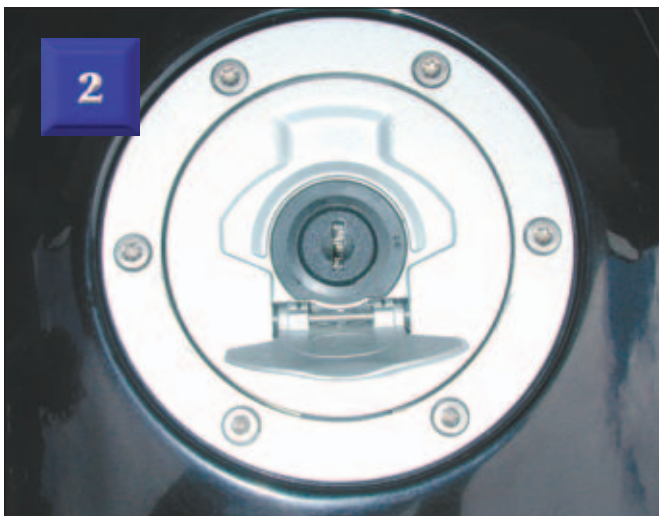
# 1999 BMW R1100GS

## Part I

by John Blankenship



The R1100GS is a powerful dual-sport motorcycle with an 1100cc twin cylinder engine. The long travel suspension and skid plate allow it to handle rougher terrain than a standard street motorcycle. There are no codes anywhere on the motorcycle, but it is not difficult to originate a key.



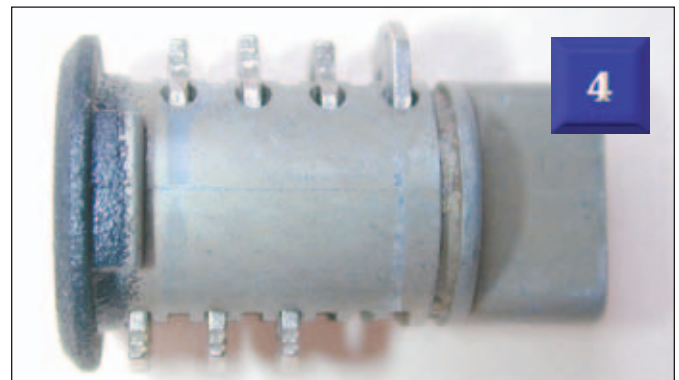
The gas cap is a good source for the first six of eight cuts. There are five options:

- A. Pull the plug.
- B. Use The Determinator™.
- C. Pick and disassemble the lock.
- D. Read the wafers.
- E. Impression; the plug turns counter-clockwise.

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The wafer retainer can be pulled into the plug by using a hook dental pick in the keyway. A standard hook pick will not work because it does not push the bottom of the retainer down into the lower wafer chamber far enough. The pick is shown in *photograph 11*. The retainer is 3/4" (19mm) from the face of the plug. Put a mark on the pick 3/4" from the tip and work it into the keyway. When you are on it, you can feel the spring tension as you pull it down (toward the rear of the motorcycle). The pick will extend into the lower wafer chamber enough for you to pull the plug out once you have it depressed.



The gas cap contains wafer tumblers in spaces 1 - 6. The odd spaces are on the bottom of the keyway and the even spaces are on the top. The top is toward the front of the motorcycle. The 7th wafer chamber is empty and the 8th contains the retainer.

5



The gas cap wafers are from left to right, 211233. They are marked per depth in two different ways. Some have the number and others have 1, 2, or 3 marks. You can use the ASP A-13-101 keying kit which is also used by '75-'93 BMW automobiles that use the 'HB' codes and X59 or X144 blank. You can determine the cuts for spaces 7 & 8 in the ignition lock by using code software, progression, reading, or impressing.

**Software:** A search using software revealed that there are only two codes that use those cuts in the first six spaces, so the last two cuts can only be 12 or 21. The code turned out to be H22433P with cuts of 21123312.

**Progression:** Only 3 depths are used, so there are only 9 possible combinations for progressing cuts 7 & 8. 1st key: 11, 12, 13, 23, 33. 2nd key: 21, 31, 32. 3rd key: 22.

**Reading:** There are only three depths, so reading the height of the wafers in the keyway with an otoscope should not be too difficult. The numbers/marks on the wafers face toward the rear of the plug so you cannot see them by looking into the keyway.

**Impressing:** The wafers are sturdy so impressing is a good option.

The locks on this motorcycle use the same spacing and depths as those used on 1975-1993 BMW automobiles using 'HB' codes with 2 exceptions:

1. Only the first three of the four depths are used.

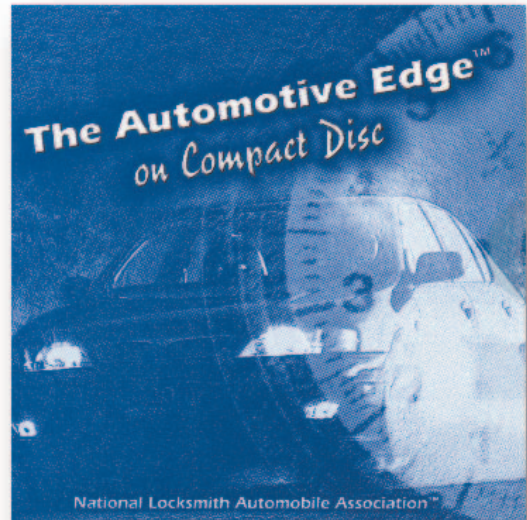
2. Only the first eight spaces are used. Therefore The Determinator(tm) for BMW will work on these locks. It is shown being used in the gas cap.

Lubricate the lock and rake the wafers to clean out the grease and it works well. The only problem is that the gas cap is designed with the wafers closer to the face of the plug than the other locks on this motorcycle, so you have to add a couple of spaces to the space number that the tool indicates. Keep in mind that the odd spaces are on the bottom of the keyway and the even spaces are on the top and you should not have a problem. The top of the keyway is toward the front of the motorcycle.

The tool is designed to pass over the 1 & 2 depth wafers and to hang up on the 3 & 4 depth wafers. If the tool hangs up, you know it is a 3 depth since the fourth depth is not used on these locks. Cut the other spaces to a 1 1/2 depth and try the key in the lock. If you get a mark it is a 2 depth and if you don't get a mark it is a 1 depth. It is a good idea to take readings in more than one lock to insure consistent results.



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#AE - CD



7

To disassemble, pick the gas cap lock 90 degrees counter-clockwise and raise the cap. I was able to pick this lock without too much trouble by raking and jiggling the wafers on both sides of the keyway. Allow the plug to spring back to the locked position after the cap is raised. Place a rag over the filler neck to prevent the screws from falling into the gas tank. Remove the three Phillips screws that hold the bottom of the cap on.

Lay the bottom of the cap onto the rag over the filler neck for safekeeping. The retaining wafer is visible on the upper side of the plug. Depress it and push the plug out the front. The grease does a good job of holding the wafers in but be careful not to spill them.

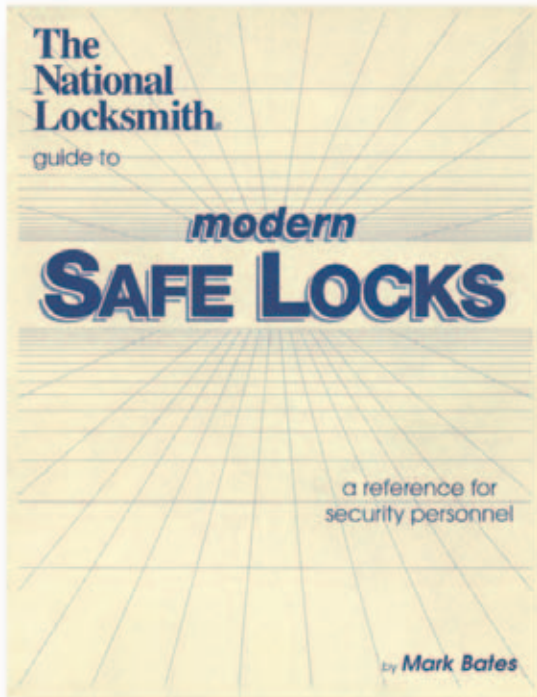


8



9

The helmet lock is located on the right side of the motorcycle just below the seat. Turning the plug 35 degrees counter-clockwise releases the shackle. The plug is spring loaded so it will spring back when released. I was not able to pick this lock due to a tight fit.



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#MSL - 1



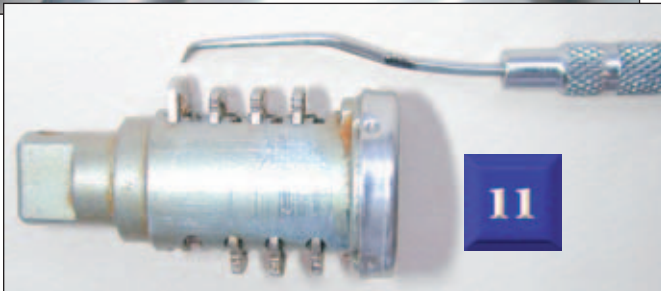
10

You can use a hook dental pick in the keyway to depress the retainer, but the tailpiece is under strong spring pressure and the friction resists the plug being pulled out. It is necessary to use a hook or similar tool in the keyway to pull the plug out while the retainer is depressed. The gas cap, seat, and luggage plugs are far easier to remove.



12

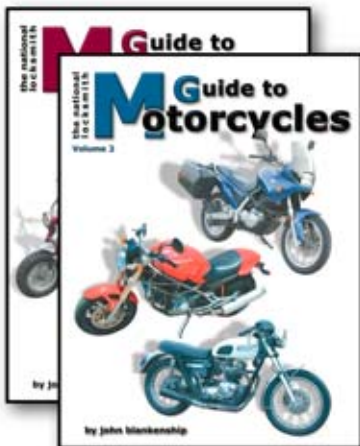
The Determinator™ for BMW is shown in the helmet lock. It is used the same way as in the gas cap lock except you can use the space numbers on the tool. Just remember that the odd spaces are on the bottom and the even spaces are on the top.



11

The helmet lock plug is identical to the plugs in the seat and luggage locks. It contains wafer tumblers in spaces 1-6. The odd spaces are on the bottom of the keyway and the even spaces are on the top. The 7th chamber is empty and the retainer is in the 8th chamber. The dental hook pick I use to depress the retainer has a mark 7/8" from the tip so I can easily position it.

## Guide to Motorcycles Vol. 1 & 2



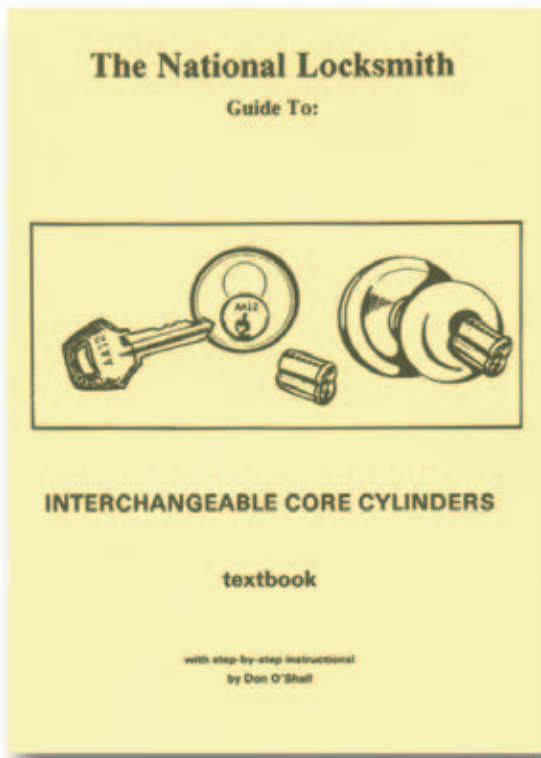
For years locksmiths have begged for a comprehensive service manual on motorcycles and its finally here!

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- Schlage, Yale, Lockwood
- Medeco Removable Core

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#ICB - 1



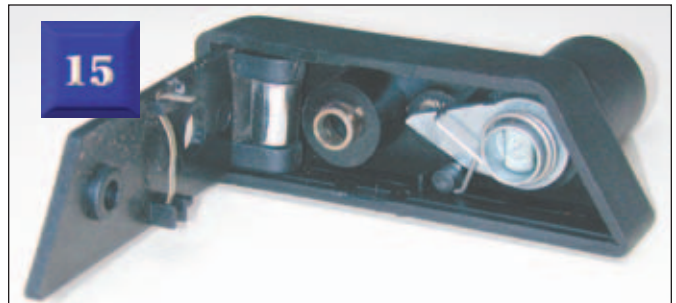
13

The helmet lock is secured by a bolt with a nut on the back of it. Loosen the nut and hold it with a 10mm wrench and then use a 5mm hex key to remove the bolt. You can use a ball end hex key to remove it while it is locked.



14

The back of the helmet lock has two slots (top & bottom) for removing the backing plate. A screwdriver is shown prying the backing plate from the lock housing. The shackle must be unlocked to do this.



15

The backing plate is removed although it is still attached to the shackle. Pay close attention to how the bolt and bolt-return spring are assembled so you can replace them the same way.



16

The helmet lock is shown disassembled which exposes the retaining wafer on the rear of the plug. Depress the retainer and push the plug out the front of the lock.

Next month we conclude with the seat lock and ignition lock. 

# BUSINESS BRIEFS

## **Master Lock Combination Locks for SPL Lockers**

Master Lock's new built-in combination locks for Single Point Latch (SPL) lockers are the only locks that combine "slam shut" convenience and the high security of a "built-in" for today's most popular lockers. The Series 1652 offers an automatic locking, spring bolt lock, with an extended bolt "throw" needed to secure SPL lockers. In addition, the new locker locks offer concealed mounting that is less prone to tampering; five combination changes for a longer, useful life; and, standard key control for supervisory access.

For more information visit: [www.masterlock.com](http://www.masterlock.com)

## **Hollywood Video Selects ShatterGARD Products**



Following a series of smash and grab burglaries, including one which was prevented through the use of ShatterGARD's BurglarGARD security window film, Hollywood Video now intends to specify ShatterGARD products on all of its new stores. This is an excellent opportunity for locksmiths because locksmiths can approach other merchants in the same strip mall and tell them of Hollywood video's success in crime prevention through use of the window security film.

The ShatterGARD Locksmith Referral Program allows for a locksmith to collect a 15% commission for just referring a potential

client. A locksmith also has the option of becoming a dealer by purchasing the exclusive rights to a territory.

More information on the Locksmith Referral Program is available at [www.ShatterGARD.com](http://www.ShatterGARD.com)

## **SDC Quality and Economic Impact**

Westlake Village manufacturer Security Door Controls (SDC) took honors February 16, for recognition of ISO 9001 Certification and impact on local and state economy. As one of the largest manufacturers in it's field. SDC designs and manufactures access control equipment combining security and life safety for hospitals, nuclear power plants, military bases, international airports, major corporations and government facilities worldwide.

For more information: Phone: (805) 494-0622, Fax: (805) 494-8861, or Email: [service@sdcsecurity.com](mailto:service@sdcsecurity.com)

## **Discount Safe Debuts Program**

Discount Safe Co. Inc., a full line distributor of the "Keep It Safe" line and other safe products, has launched a locksmith program, which company officials say offers product at up to 25% less than similar models on the market and allows for ample locksmith profit margins.

Details on the new program are available at the company's web site, [www.discountsafecoinc.com](http://www.discountsafecoinc.com), or by calling: (215) 394-9004.

## **Aiphone Promotes Sales Personnel**

Aiphone has appointed Nancy McAlister to Vice President of National Accounts, Western Region. Roy Paeth has been appointed to Vice President of National Accounts, Mid-West Region. Chuck Watkins has been appointed to Vice President of National

Accounts, Eastern Region. John Mosebar has been appointed to Vice President of New Business Development/Research and Planning.

## **Access Hardware Supply Offers the Mortise Unlatch**

Access Hardware Supply will soon add The Mortise UnLatch from Securitron to its extensive product inventory.

This product installs easily in the frame, with no side cut required, making it high security and vandal resistant, that simply places pressure upon the fixed strike plate should an attack occur. It fully utilizes dead latch functions with one version that is adjustable, making it virtually workable with every mortise lock on the market.

## **Dortronics Midwest Sales Representatives**

Dortronics Systems, Inc. announced the appointment of three new sales representatives to cover the Midwest Region. HMR, Inc. will cover the Upper Midwest states of North Dakota, South Dakota, Minnesota and Eastern Wisconsin. Contact: Brad Hemphill or Sarah Moses, 800-899-0708. Greater Midwest Marketing will cover the areas of Northern Illinois and Western Wisconsin. Contact: Mark Coyle, 630-859-2190. Central Marketing Group will cover the Plain States of Nebraska, Iowa, Kansas and Southern Illinois. Contact: Joe Wilson, 816-741-7460.

## **Aiphone Improves the QuikSpec Program**

Aiphone has improved its new QuikSpec System Design Program.

The new format includes hyperlinks to the specifications and instructions for each item in the equipment list, making it easy to learn more about

each product. Aiphone wire is listed, along with the wire specifications, rounding out the information needed for a complete Aiphone system. Helpful notes about some options and accessories for the system are included. All of this information is in an easy to read printable format.

QuikSpec is an easy to use program that allows you to spec an Aiphone system right from your computer, just by choosing the type of system you want to design and answering a few simple questions. The QuikSpec program can be found at [www.Aiphone.com/QuikSpec.htm](http://www.Aiphone.com/QuikSpec.htm).

## **Yale Security "2000 Build New York" Project**

Yale Security Group was involved in the project that won the "Large New Project" category of the General Building Constructors (GBT) "2000 Build New York" awards. Tesco Sales Associates, Inc., representing Yale Security Group, worked in conjunction with their distributor, Steel Kraft's in Troy, New York, to supply a mix of high security and conventional keying locks, along with Yale 7100 Series exit devices and Norton 7500 door closers, to the Taconic Hills K-12 school project in Craryville, NY.

The program was developed to reveal the positive impact of the New York State construction industry, as well as to highlight the reputation of its general contractor and construction manager members.

For further information on this and other exciting Yale Security Group projects: Phone: (800) 438-1951 ext. 381 or Email: [mgloekler@yalesecurity.com](mailto:mgloekler@yalesecurity.com)

RL

# KEY CODES

*The HPC 1200CMB and 1200PCH code cards for this code series are between pages 134-137.*

## Dodge M0001 - M2618

Manufacturer: Dodge  
 Code Series: M0001 - M2618  
 Key Blanks:  
 CEA: YE33  
 Curtis: Y-157  
 Errebi: CY61  
 Fuki: CY22P  
 Iico: P1794  
 Iico EZ: Y157  
 JMA: CHR-14  
 Jet: Y157-PH  
 Lotus: YL202  
 Orion: P1794  
 RR: ZCHR7  
 Silca: CY22  
 Star: CHR94  
 Strattec: 596508  
 Number of Cuts: 8  
 M.A.C.S.: 2  
 Key Gauged: Tip

Center of First Cut: .941  
 Cut to Cut Spacings: .092  
 Cut Depth Increments: .025  
 Notes:  
 Spacings:  
 1 - .941  
 2 - .849  
 3 - .757  
 4 - .665  
 5 - .573  
 6 - .481  
 7 - .389  
 8 - .297  
 Depths:  
 1 = .340  
 2 = .315  
 3 = .290  
 4 = .265  
 HPC 1200CMB  
 Code Card: CX102

Jaw: A  
 Cutter: CW-1011  
 Gauge From: Tip  
 HPC 1200PCH (Punch):  
 PCH Card: CX-102  
 Punch: PCH-1011  
 Jaw: A  
 Silca UnoCode  
 Card Number: 745  
 HPC CodeMax  
 DSD #: 262  
 Jaw: A  
 Cutter: CW-1011  
 Curtis No. 15 Code Cutter:  
 Cam-Set: CHRY5  
 Carriage: CHRY5A  
 Framon #2:  
 Cuts Start at: .309  
 Cut to Cut Spacing: .092  
 Block #: 3

Depth Increments: .025  
 Cutter: FC9040  
 Key Clamping Info: Use tip stop.  
 A-1 Pack-A-Punch  
 Quick Change Kit: PAK-C5  
 Punch: PAK-90T  
 Die: PAK-90T



M0001 - 32431242	M0043 - 12442113	M0085 - 43313132	M0127 - 21323432	M0169 - 13132344	M0211 - 44232131
M0002 - 13133213	M0044 - 43342121	M0086 - 32234313	M0128 - 11343423	M0170 - 11224424	M0212 - 31131234
M0003 - 21234311	M0045 - 44324332	M0087 - 34422124	M0129 - 43242124	M0171 - 32121242	M0213 - 13313311
M0004 - 31324332	M0046 - 32442442	M0088 - 43323442	M0130 - 42344234	M0172 - 22113313	M0214 - 23132213
M0005 - 13432234	M0047 - 32331121	M0089 - 44324323	M0131 - 23113124	M0173 - 13323342	M0215 - 31322131
M0006 - 43431312	M0048 - 13224311	M0090 - 42312311	M0132 - 43242442	M0174 - 13231133	M0216 - 22421321
M0007 - 24323313	M0049 - 22434312	M0091 - 43134321	M0133 - 42312212	M0175 - 43131332	M0217 - 22342332
M0008 - 31244322	M0050 - 23112322	M0092 - 32312432	M0134 - 44312443	M0176 - 42324442	M0218 - 24342312
M0009 - 22311211	M0051 - 33421113	M0093 - 21124322	M0135 - 42313232	M0177 - 43321332	M0219 - 11322121
M0010 - 21122431	M0052 - 31313131	M0094 - 34421232	M0136 - 34242231	M0178 - 33112433	M0220 - 22443312
M0011 - 13434312	M0053 - 32131134	M0095 - 43421132	M0137 - 23131223	M0179 - 43323231	M0221 - 13234431
M0012 - 12431312	M0054 - 13432121	M0096 - 31221313	M0138 - 13343224	M0180 - 32421123	M0222 - 24332313
M0013 - 34344232	M0055 - 22434223	M0097 - 43244242	M0139 - 21242433	M0181 - 11334423	M0223 - 11242424
M0014 - 31233423	M0056 - 42423131	M0098 - 33442311	M0140 - 23231132	M0182 - 11313242	M0224 - 44243324
M0015 - 34311224	M0057 - 22131242	M0099 - 42332132	M0141 - 34313124	M0183 - 13422131	M0225 - 22132421
M0016 - 13323121	M0058 - 22421312	M0100 - 32424231	M0142 - 12132242	M0184 - 24223134	M0226 - 44244331
M0017 - 44243422	M0059 - 42132244	M0101 - 43113242	M0143 - 13234422	M0185 - 23313431	M0227 - 21123313
M0018 - 22122313	M0060 - 23212133	M0102 - 12321313	M0144 - 43231313	M0186 - 43313124	M0228 - 13131322
M0019 - 32113312	M0061 - 23112134	M0103 - 24332421	M0145 - 31133424	M0187 - 33431224	M0229 - 11212424
M0020 - 13131134	M0062 - 24213234	M0104 - 24432231	M0146 - 42212243	M0188 - 13442421	M0230 - 24324321
M0021 - 34342432	M0063 - 32433442	M0105 - 13324224	M0147 - 42443234	M0189 - 23434221	M0231 - 13322432
M0022 - 21344322	M0064 - 31231233	M0106 - 32323242	M0148 - 42424432	M0190 - 22342121	M0232 - 23213221
M0023 - 33442342	M0065 - 32112313	M0107 - 24321311	M0149 - 42232234	M0191 - 13312124	M0233 - 42244212
M0024 - 43232312	M0066 - 42431132	M0108 - 13423242	M0150 - 32231131	M0192 - 23432134	M0234 - 31123244
M0025 - 31212133	M0067 - 44223343	M0109 - 43312332	M0151 - 23424231	M0193 - 21313443	M0235 - 34311212
M0026 - 21343113	M0068 - 23421221	M0110 - 31134432	M0152 - 33243312	M0194 - 13424232	M0236 - 43324342
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# Dodge

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 M0405 - 31131331  
 M0406 - 11344234  
 M0407 - 13113331

# AutoSmart Advisor



Contains virtually every car and part  
 known to man up through 2000.

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#ASA - 2002

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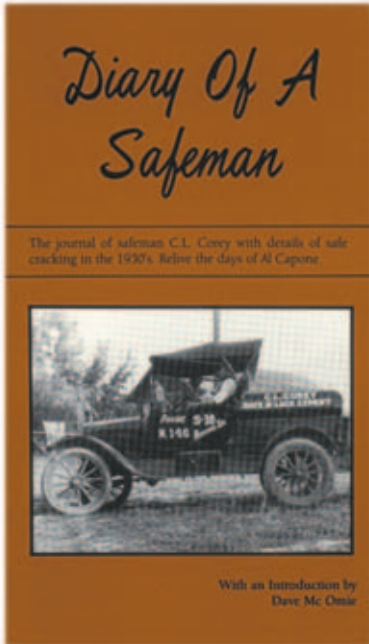
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## Diary Of A Safeman



The journal of safeman C.L. Corey with details of safe cracking in the 1930's. Relive the days of Al Capone.

With an Introduction by Dave Mc Omear

This book is a real gem...the private safe diary of old time safecracker C.L. Corey.

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#DIARY

## Dodge M0001 - M2618

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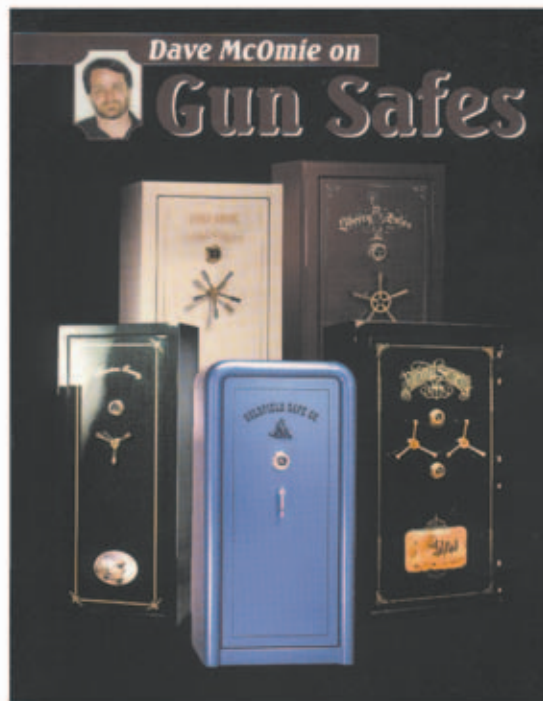
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M0715 - 23134422  
M0716 - 31342242

# Gun Safes



Need a drill point or relocker drill point  
on a gun safe?

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#GS - 1

# Dodge M0001 - M2618

M0717 - 23233134	M0777 - 12334242	M0837 - 21124244	M0897 - 22332213	M0957 - 13234242	M1017 - 13234323
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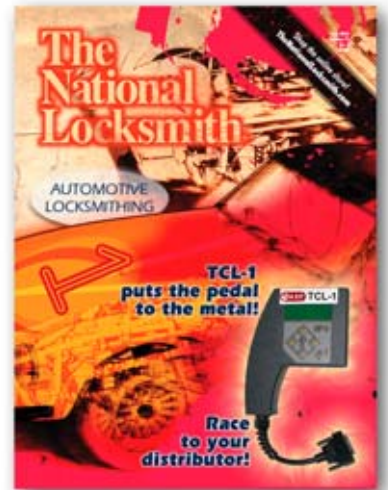
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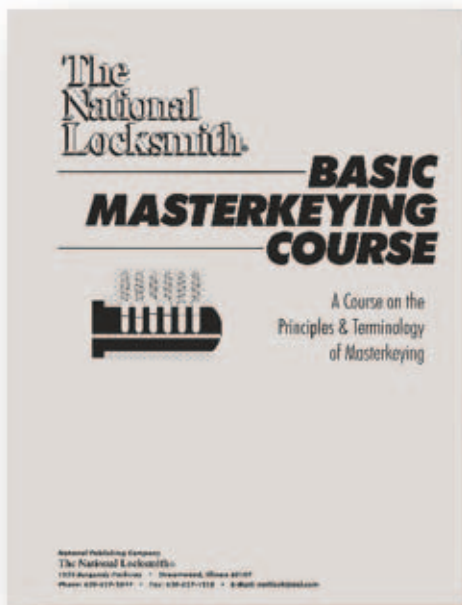
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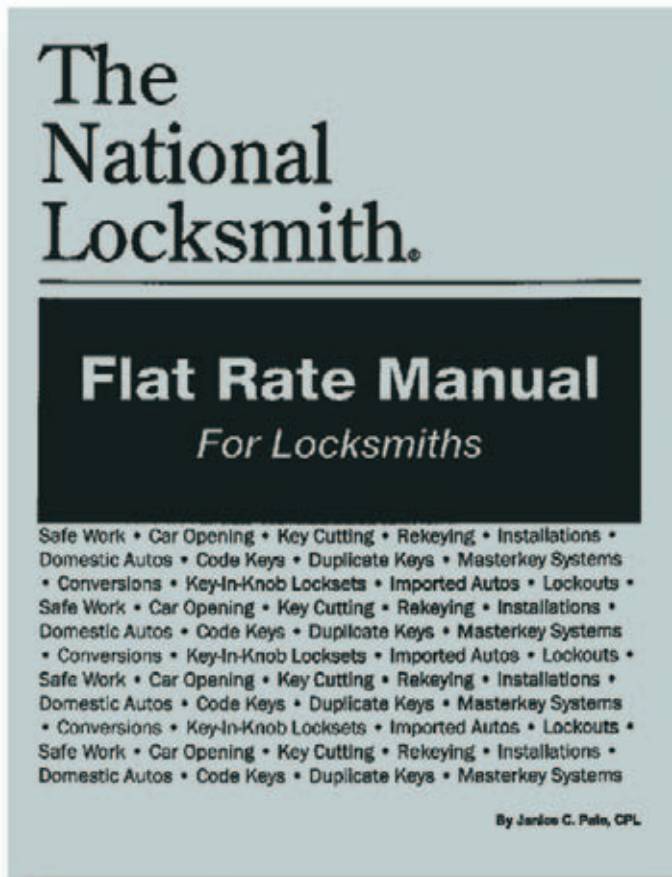
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## Flat Rate Manual



Now you can easily "Price for Profit!"

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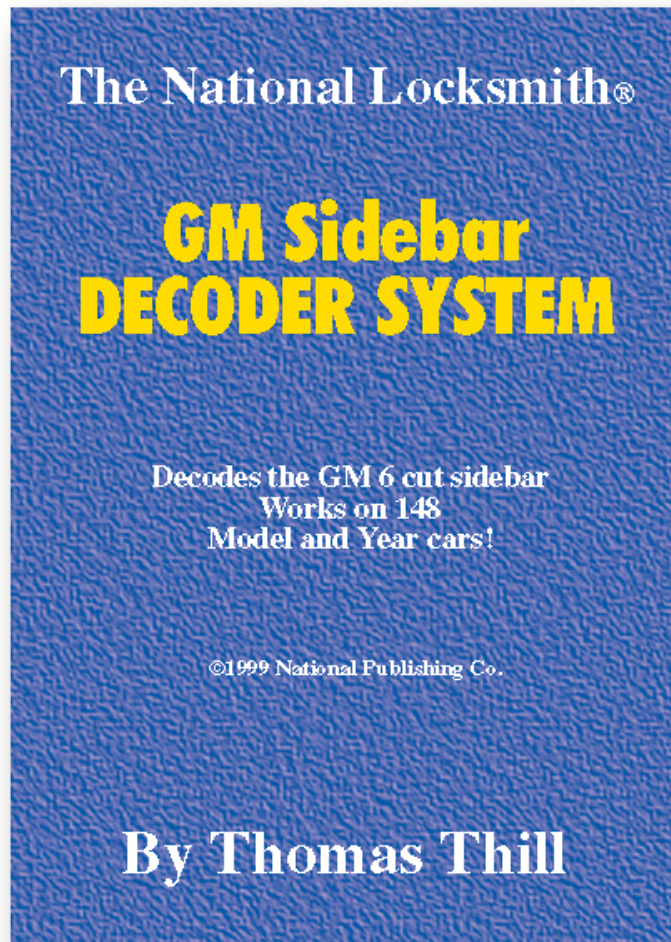


#FRM - 1

## Dodge M0001 - M2618

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# GM Sidebar Lock Decoder System

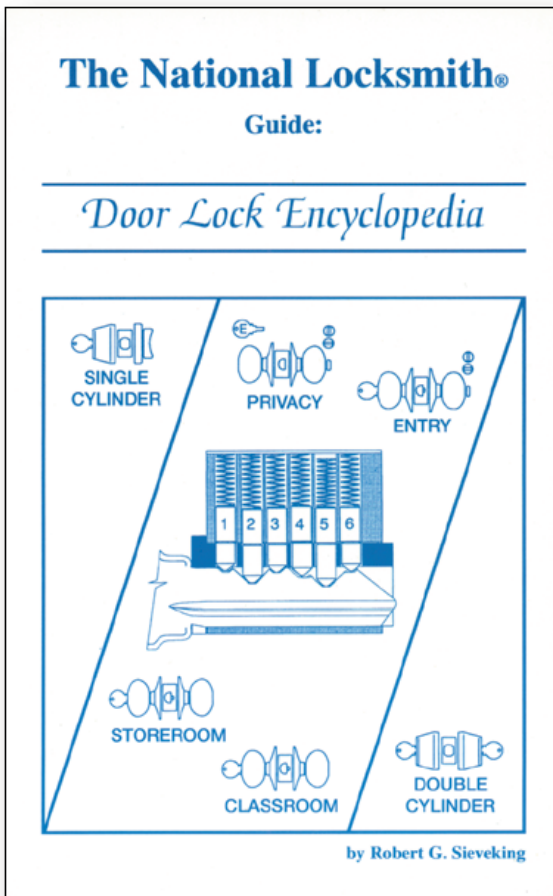


Tom Thill, the author of a new book, has invented  
an amazing new way to make keys  
for six cut GM Sidebar Locks.

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#TT - 1

# Door Lock Encyclopedia



The ability to remove a lock from a door, disassemble the mechanism, and remove the lock cylinder for service is not always a simple straightforward task.

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#DLE

## Dodge M0001 - M2618

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- M1842 - 23233422
- M1843 - 43434224
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- M2156 - 21311243
- M2157 - 31134221
- M2158 - 31132442

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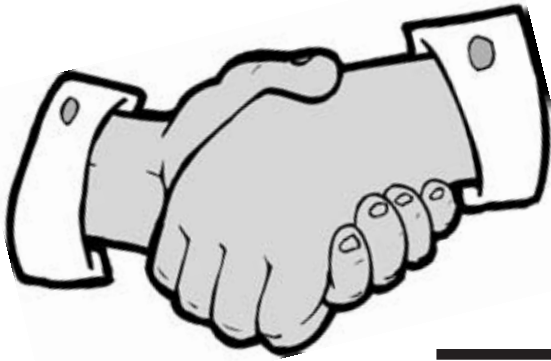
#GM - 2

# Dodge

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M2220 - 21123422	M2299 - 42311324	M2378 - 34232232	M2457 - 34244242	M2536 - 24211231	M2615 - 34224424
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M2222 - 12243423	M2301 - 34313434	M2380 - 24244221	M2459 - 24332443	M2538 - 32231124	M2617 - 43322331
M2223 - 33112424	M2302 - 24343423	M2381 - 42424211	M2460 - 24331242	M2539 - 22432324	M2618 - 44324431
M2224 - 42242134	M2303 - 43423342	M2382 - 43313231	M2461 - 34231242	M2540 - 24424243	
M2225 - 31323422	M2304 - 13442443	M2383 - 22423331	M2462 - 31132134	M2541 - 13312312	
M2226 - 33213342	M2305 - 23311213	M2384 - 32433231	M2463 - 33421211	M2542 - 43323244	
M2227 - 42334221	M2306 - 13243242	M2385 - 21334422	M2464 - 11234231	M2543 - 43231331	
M2228 - 43244324	M2307 - 42233231	M2386 - 21321331	M2465 - 12442234	M2544 - 34344331	
M2229 - 32432134	M2308 - 43422442	M2387 - 32423443	M2466 - 43113332	M2545 - 23133243	
M2230 - 44242334	M2309 - 33243231	M2388 - 44343331	M2467 - 13231232	M2546 - 34424332	
M2231 - 42244334	M2310 - 23212424	M2389 - 31213132	M2468 - 11224322	M2547 - 42432343	
M2232 - 32343312	M2311 - 33421332	M2390 - 31331212	M2469 - 23433132	M2548 - 23124242	
M2233 - 43244234	M2312 - 13211323	M2391 - 21123133	M2470 - 13244232	M2549 - 33434211	
M2234 - 12242132	M2313 - 22331124	M2392 - 33123113	M2471 - 24243231	M2550 - 43324423	
M2235 - 23442344	M2314 - 13132421	M2393 - 24232124	M2472 - 42431224	M2551 - 13133123	
M2236 - 24332322	M2315 - 42121211	M2394 - 22424323	M2473 - 43342244	M2552 - 34342131	
M2237 - 22431131	M2316 - 43343431	M2395 - 11331313	M2474 - 21122423	M2553 - 43431131	

**TL**



# Closing the Sale

Knowing when and how to do it!

by Ted Tate

Many sales people often wonder, when should they ask for the order? The answer of course is easy: *When the prospect is ready!* Unfortunately, the bigger question is: How can I know when to stop selling and ask for the order? That answer is also easy, if you understand the psychology of sales closing that I'll share with you here.

Why is this timing so important? There is a real danger to what is commonly called, "overselling." That is to keep on talking when your prospect has already decided to buy. So, how can you know when to stop selling and ask for the order?

There are two basic ways prospects will let you know when they are ready to buy, verbal and non-verbal buying signals.

## Verbal buying signals

In all my years of selling I have never had a prospect beg me to sell them something, it just doesn't work that way. However, when your prospects are ready to make a buying decision, they frequently give you what are referred to as, "buying signals."

If your prospect makes comments similar to these below, stop selling immediately, employ a trial close and be ready to ask for an order.

## Recognize verbal buying signals such as:

- "This looks nice"
- "What is the warranty?"
- "It sounds pretty good."
- "You know, I could \_\_\_\_\_"  
(Mentions an application using what you are selling.)

- "May I see that again"
- "Do you have an extended warranty?"
- "I've never thought about it like that."
- "Sounds good"
- "I can see the advantage"
- "What about delivery"
- "Could we get delivery by \_\_\_\_\_"
- "We already have a \_\_\_\_\_, is this compatible?"
- "Do you offer payment terms?"
- "How long is this price good for?"
- How do you think we would use it here?"
- Prospect agrees with your statements
- Prospect asks valid questions
- Prospect speaks about ownership, "If we had this delivered, how soon would it arrive?"
- When you quote a price, prospect asks about payment terms, financing, etc.

Professional sales people usually ask trial closes as questions during a sales presentation to see how the prospect is reacting to their sales presentation. Here's a few examples.

- "Does that feature sound like something that would be helpful, Mrs. \_\_\_\_\_?"
- "Can you see yourself \_\_\_\_\_"
- "How does that sound to you, Mr. \_\_\_\_\_?"

## Non-verbal body language

Here's some unspoken body language to watch for:

- Prospect silently nods positively as you talk
- Prospect's mood is positive, perhaps even smiling
- Prospect sits upright or leans forward in his/her chair.
- Prospect picks up sales material, a testimonial or examines a demonstration unit
- You have the prospect's full attention

As a rule, you'll find these behaviors about two thirds' into your sales presentation, but they can happen at any time. Sometimes you'll call on a prospect that knows what you sell and has a favorable impression. They may decide quite early during the sales call to buy, so always be aware.

## Are they ready? Who knows? You've got to ask!

If your prospect exhibits some of these behaviors, the next step is a trial close. You ask one and the answer tells you where you are in the selling process. When you ask them for an opinion and the response is not positive, you may not have lost the sale, you'll simply need to continue selling.

Any question that asks for their opinion is a trial close, here's a few more examples.

- "What do you think so far?"
- "Is this what you were looking for?"

- “How do you like it to this point?”
- “How do you feel this will fit in?”

If their response is positive, go for the close! You need to have at least three trial closes memorized, because you can offend people by using the same trail close repeatedly. It makes it very obvious what you are doing. Three or four different trial closes keep it sounding fresh and spontaneous.

#### Trial Close Rules

1. Don't fail to use trial closes at every sales presentation. The more you practice, the better you get.
2. Start early and throughout the sales presentation. Use anytime when you feel they are justified.
3. Know when to stop talking and close. When you get a positive response to your trail close, this is it, go for the close!

4. Remember, if you get negative feedback from a trial close, it doesn't mean you stop selling, in fact that's your sign to give the prospect addition reasons to buy.
5. Be a closer, not an order taker! The difference between the salespeople who earn the big bucks and drive the nice cars is almost always their persistence. Be willing to not let a little resistance stop you from closing. Be willing to close and close again!

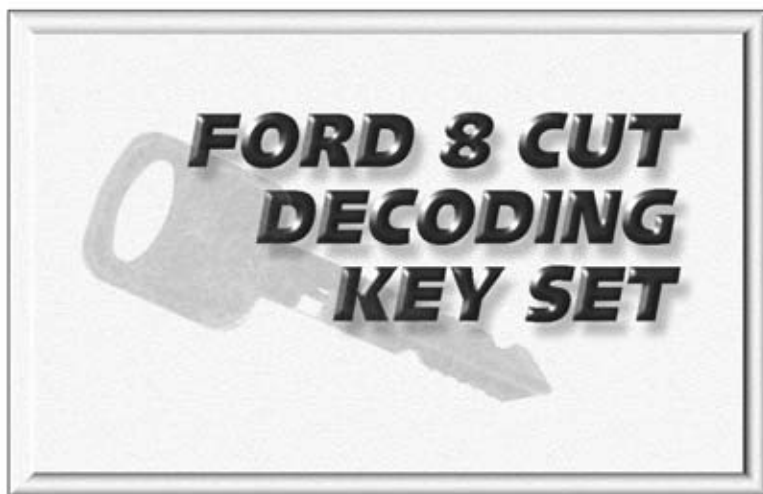
For more information on this topic see the book, “Sales Closing for Dummies” by Tom Hopkins makes excellent reading on the subject of closing sales.

Good luck and good selling!

*(Ted Tate is a nationally known author and trainer. His powerful seminar on “Handle Objections and Close More Sales” is one of several he gives at in-house sales meetings and conventions nationwide. He offers free sales tips at his website: [www.trainingexpert.com](http://www.trainingexpert.com))*

TNL

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#FD - 8



Taking  
Industry Products  
for a

## TEST DRIVE!

PDQ Manufacturing started business in 1983. It's manufacturing facility and headquarters are located in the heart of Lancaster County, Pennsylvania. They carry a comprehensive line of locks and hardware for almost every application, from heavy-duty, high-quality commercial locksets right down to residential grades. Add an additional 25 mortise locks in the MR Series and you have quite a collection to choose from.

### PRODUCT:

The SE series is a medium duty Grade 2 lever set. These lever sets feature a healthy lever return spring with a solid feel and a slightly larger rose than a standard duty or residential lockset would. The SE series is available in eight different functions: 115 Storeroom; 116 Entrance; 125 Communication; 126 Passage; 148 Classroom; 176 Privacy; 182 Office/Entry; 211 Single Dummy.

### FEATURES:

The SE series is designed for doors from 1-3/8" to 1-3/4" thick and is non-handed. The backset is adjustable for 2-3/8" and 2-3/4". The latch has a 1/2" throw and includes an adjustable front for flat or beveled doors.

Available in keyways of most major manufacturers, the locksets can be ordered as Master Keyed (MK), Grand Master Keyed (GMK), Zero Bitted (KO), Keyed Different (KD) or Keyed Alike (KA). They can even be keyed into existing master key systems.

The finishes available are US3(605), US4(606), US26D(626), or US10B(613).

# SE Lever Locks

## From PDQ Manufacturing

The lever trim is zinc diecast with a stainless steel or wrought brass rose. The cylinder is a brass 6-pin keyed to 5 pins.

The SE series complies with ANSI A156.2, Series 4000, Grade 2 and meets all applicable accessibility requirements of the (ADA).



With all of this you get a limited one year warranty.

### INSTALLATION PROCEDURE:

The SE series is installed using a standard 161 door prep. For those that are not sure, the 161 is a door prep with a 2-1/8" cross bore and a 1"

edge bore like you would have in your home.

### PRICE:

The entrance function will sell to the locksmith for around \$40.00 with a list price of \$112.00.

### IN SUMMARY:

- Available in eight functions
- Adjustable latch
- Four finishes available
- Can be keyed at the factory any way you want
- Standard 161 prep
- Complies with ANSI A156.2, series 4000 grade 2
- Meets all accessibility requirements for ADA

### CONCLUSION:

The PDQ SE series is a very versatile lockset due to its prep requirements and the adjustable features of the latch. Due to the features of the latch, a smaller inventory is required.

### CONTACT INFORMATION:

PDQ products are available through Clark Security Products and Accredited Lock Supply Company.

PDQ Manufacturing can be reached at 717-656-4281 or toll free at 800-441-9692. Their fax number is 717-656-6892. Their address is PO Box 507, 2754 Creek Hill Rd, Leola, PA 17540. They also have a very good web site at [www.pdqlocks.com](http://www.pdqlocks.com).



### IN SUMMARY:

**DESCRIPTION:** A medium duty Grade 2 lever set.

**PRICE:** \$112.00 list

**COMMENTS:** Features an adjustable latch.