

he'd never spoken a word of English. I had figured he didn't know any. Then, the last day I saw him, as he walked slowly away from my check-point, starting back across the bridge into Mexico, he waved and called back over his shoulder, 'See ya' later, 'gater.'"

His eyes clouded a bit, remembering, then they brightened again. "You know, Customs won't let you bring migratory birds across the border. Tourists buy those colorful parrots in Mexico thinking they'll take them back home for pets, and Customs confiscates them and sells them back to the natives, cheap. It seems like kind of a racket, but the law says the birds can't be taken across the border, period, so what else can they do with them?"

Well, there was this guy who was moving to the States. It was all legal, and all. Thing was, in a cage in the back of his truck he had a bright red cardinal and a parrot.

"You can't take the birds across the border into the U.S.," I told him. "It's against the law."

"But these are my pets," the man protested. "I've had them for years."

"Sorry. The law is clear. No birds." To verify my position on this, I called in my superior, who said exactly the same thing: no birds can be taken across the border.

"The man was unsure what to do. His pets were dear to him, and he didn't want to turn them over to the border authorities to be sold to just anybody, but he had come from deep in Mexico and had no family or friends in the border town to take the birds. Finally, the man asked, 'What if I just turn them loose?'"

"I shrugged. 'Sure. I don't see why not.' Nothing in the law opposed such a choice, so my superior did not object, either, and went back to his work in another room.

"There was only one problem: the cage was locked, and even after rummaging around through the boxes in his truck, the man could not find the key. 'Never mind,' I told him, and in a couple of minutes I had the door picked open for him.

"The man opened the cage, and the cardinal promptly flew out and kept going, but the parrot didn't move. The man tried to coax his pet out of the cage, but had no luck.

When he tried reaching in to take him out, the large bird squawked loudly, emitted a stream of Spanish curses, and tried to bite him. Finally, he and I took hold of the cage and shook the bird loose from his perch and out the cage door. The parrot flew around and around, squawking angrily, then came to rest on his owner's shoulder. No matter what the man did to dislodge him, the parrot would not fly away, but would return to the man's shoulder.

"Finally, the man turned to me in desperation. 'What am I to do?' he asked.

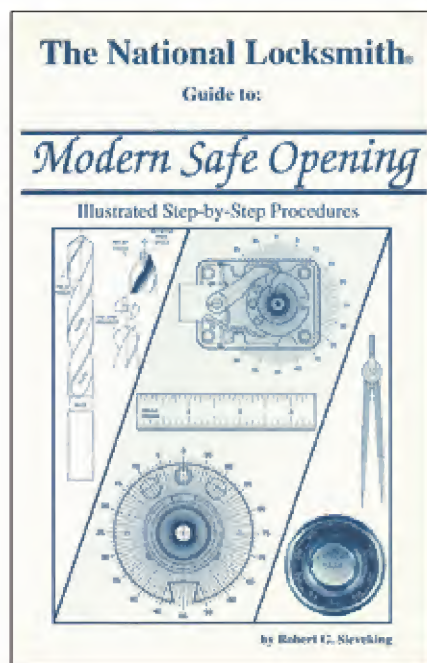
"I glanced about to see that we were alone. Then I said with a wink, 'If I were you, I'd be on my way.'

Grateful, the man did just that.

"As the man drove away, my superior came charging out of his office. 'Stop that man!' he shouted. 'He can't carry that bird across the border!'"

"'Oh, he's not carrying him across,' I said. 'He released him, just as you said he could. The parrot is going along for the ride, of his own free will.'" **TNL**

Modern Safe Opening



This book is a step-by-step How-To course in safe penetration. Opening safes is one of the most profitable aspects of the locksmithing business.

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#MSO - 1

A Tale of Two Gardalls



by
Dale W. Libby, CMS

Just because a particular safe resembles another safe on the outside or carries the same name, does not mean that the safes are similar on the inside. Such is the case with the two Gardall manufactured safes we will cover this month. The locks are identical (Sargent and Greenleaf 6700), and as with all Gardall safes I have worked on, the combination lock is mounted Vertical Down (VD).

The first Gardall safe is a dual B/F rated unit. The B/F rating indicates Burglary and Fire protection. The first thing you will notice is the "Gardall" name emblazoned across the top of the first safe door. (See photograph 1.) The

dial is on the centerline of the door with the handle to the left. The handle is a flat pressed handle that rotates from the 6:00 o'clock position (clockwise) to the 8:00 o'clock open position.

At first glance you might think that the lock on this unit is mounted Horizontal Left (HL). By careful observations we can see that is not the case for two reasons. First, the handle on this unit is too close to the dial and dial ring. Secondly, the centerline of the handle is below the centerline of

the dial.
With this

configuration, we should suspect that the lock is mounted Vertical Down (VD) or Vertical Up (VU).

As I stated before, the Gardalls I have worked on have had the combination locks mounted Vertical Down. Taking off the back cover of the safe door we see that the lock is indeed mounted VD. (See Photograph 2.) The opening handle is located at the tip of the new S&G back cover that holds the relocking device in place.

This new cover is quite interesting. On the top left of the cover is the factory label that covers the change key hole. The label has the customary warning that "only factory authorized personnel should service the lock". The other part of the cover is a 'wing' that is adapted for several relocking devices located outside of the combination lock body.

This wing has a slot for the Gardall plunger, as well as holes and a slot for other types of relockers. Ones that incorporate roll pins or compression pins to hold the relocker in the open position when the cover is attached to the lock. I will show you a close up of this relocker later on in the article on the other Gardall safe.

This safe has three bolts (hard to see) that are attached to the moving plate attached to the blocker bar. The movement is direct and not reciprocal. When the handle is moved right (clockwise from the outside of the safe) the bolts move left. I call this a direct drive bolt movement, as opposed to the indirect drive of the second safe as we will soon see.

1. Small Gardall safe, handle close to dial.



2. Inside bolt work of the small unit. Note relock cover on S&G lock.



3. Lock and bolts in open position. Bolt bar moves as bolts do.



4. Large Liberty safe. Note handle is farther from dial and below dial center.



Photograph 3, shows the inside of the first safe door in the open position. You can see how the movable bolt bar moves under the combination lock when the bolt is up. Also evident is the hole in the bolt bar for the relock pin to fit. Clean and simple arrangement of bolts, lock, and relocker.

The second safe is the one I was contacted to work on. It had Gardall across the top with the Bulldog Logo as well, but instead of having the Bulldog on the dial as the first one did, it had the name Liberty Safe in the center of the dial. The identical handle was used on this unit which is also slightly below the centerline of

the dial. This meant to me that the lock was probably also mounted Vertical Down.

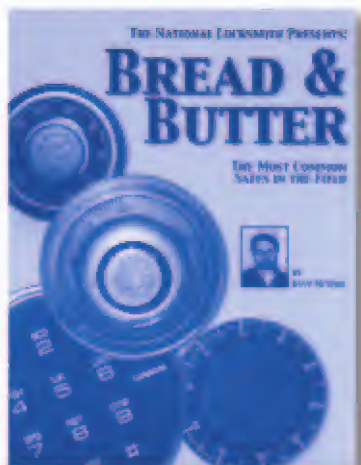
The call on this unit was that they could not get the safe open. I assumed that the reason for the problem was that they were having trouble with the combination lock. I was wrong.

I tried the combination and the dial stopped correctly at 94 on the dial. I tried the handle and it turned freely from 6:00 o'clock to the 8:00 o'clock position. (*See photograph 4.*)

The door would not budge. Just for fun, I spun the dial slowly to clear off the combination and tried the handle again. To my surprise, it again turned freely from 6:00 o'clock to the 8:00 o'clock position. Doing the combination had no effect on the handle movement. It was a disconnect of some sort.

By moving the handle back and forth, I could feel that there was movement of bolts. This unit was much larger, so it could have had three to five bolts. I knew that one of the bolts had become disconnected from the bolt bar, most likely the center bolt. I also knew that this safe must have a different bolt control for a lockout like this to occur. I was right.

After opening the safe and repairing the unit, the bolt control looked precisely as you can see in *photograph 5*. With this bolt arrangement, when the outside handle is moved from 6:00 to 8:00 o'clock, the main bolt bar goes



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toward the opening side of the door. In the first safe, the handle caused the bolt bar to move in the same direction as the bolts. Here, a reciprocating movement of the bolt bar, and a square block of steel

caused a pivoting movement. When the bolt-carrying bar moved out, the bolts moved in.

The bolt shown on the bar that attached to the square pivot plate was

missing, allowing the handle to move even when the unit was locked. The top and bottom bolts were withdrawing properly, but the center bolt was not able to move because it was not attached to anything.

Photograph 6, shows the unit working properly. Note the similar position of the square pivot bars for the center and top bolt. Both are in the vertical or open position and both bolts are withdrawn.

Photograph 7, shows the safe with the center bolt not attached. The top bolt can be seen in the open position while the center bolt is still locked. This is the configuration that I worked on and got open. There are three (maybe more) possible avenues of attack to get this unit open.

First, one could move the safe out from the wall and drill into the opening side of the unit, searching for the center bolt. The 1-inch body bolt

5. Bolt arrangement on Liberty Safe. Bolt bar and bolts move in different directions.

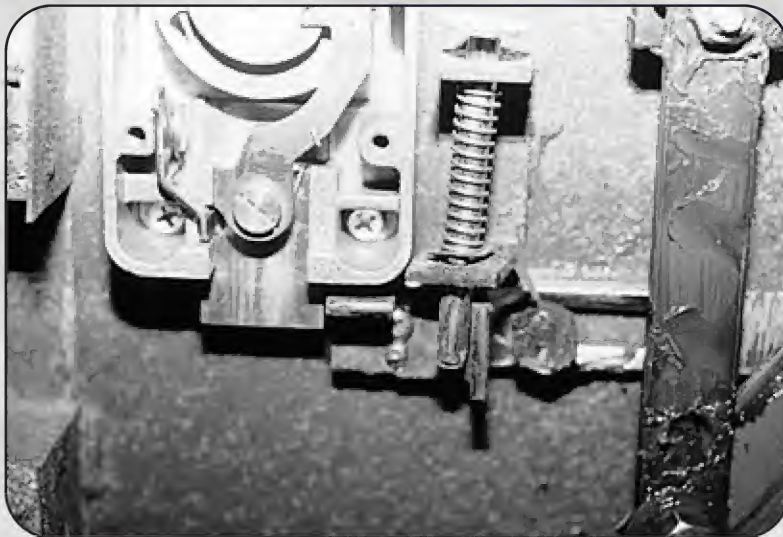


6. Properly functioning arrangement. Both rectangular pivot bars are vertical pulling the bolts into the safe door (top and middle bolts).



7. Center pivot unbolted. Top bolt is withdrawn while center bolt is still locked. Note positions of rectangular pivots.

8. Relocking trigger inside lock, and external relock device is shown.



is located in line with the combination lock bolt. Drill in at the side of the unit about 2" with a small drill and search for the end of the bolt. After dialing the combination and throwing the handle to unlock the top and bottom bolt, fish around until you find the end of the bolt and press it into the safe door.

I am not sure of the measurements of how far back to drill, just of the placement of the bolt in this unit. This

is too messy for me, but might be used as a last resort.

Secondly, one could take the safe away from its tight fitting cubbyhole and tip it on its hinge side and beat the door with a dead blow hammer. With the combination on the lock dialed and the handle turned to the open 8:00 o'clock position, the bolt would eventually fall into the door and the safe would open.

The third method and the one that I used, really works well and does not require one to be a safe mover of any kind. It is hard to move, tip, and stand up safes, so I only suggest that method if you are a gorilla and have a good back. I do not.

The method I used I call the Rock and Roll method of gently nudging the bolt bar back into the door.

With the combination open to the stop position, and the bolt handle thrown, I inserted a mini-flattened Chrysler torsion bar at the bottom of the door and shook it up and down while pulling out on the door handle. I was trying to get movement of the door in as many directions I could. To see if I was making any progress, I tried to move the dial out of the drop in area of the combination lock. To my happiness and surprise, I could not move the dial more than a few numbers. This was a good sign.

What this means is that part of the unattached bolt had moved under the open combination lock bolt, blocking its downward movement. This will keep the dial from moving no more than a few numbers. This means that

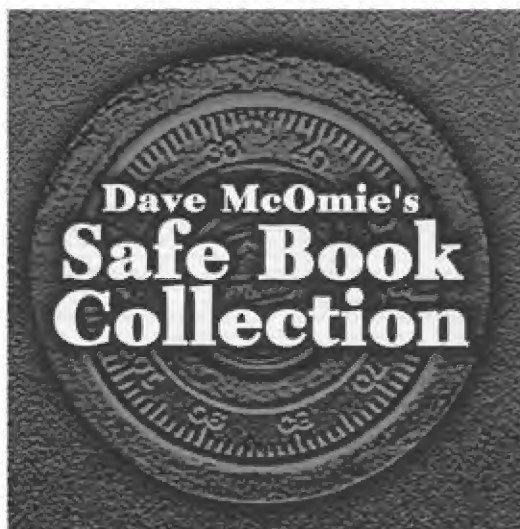
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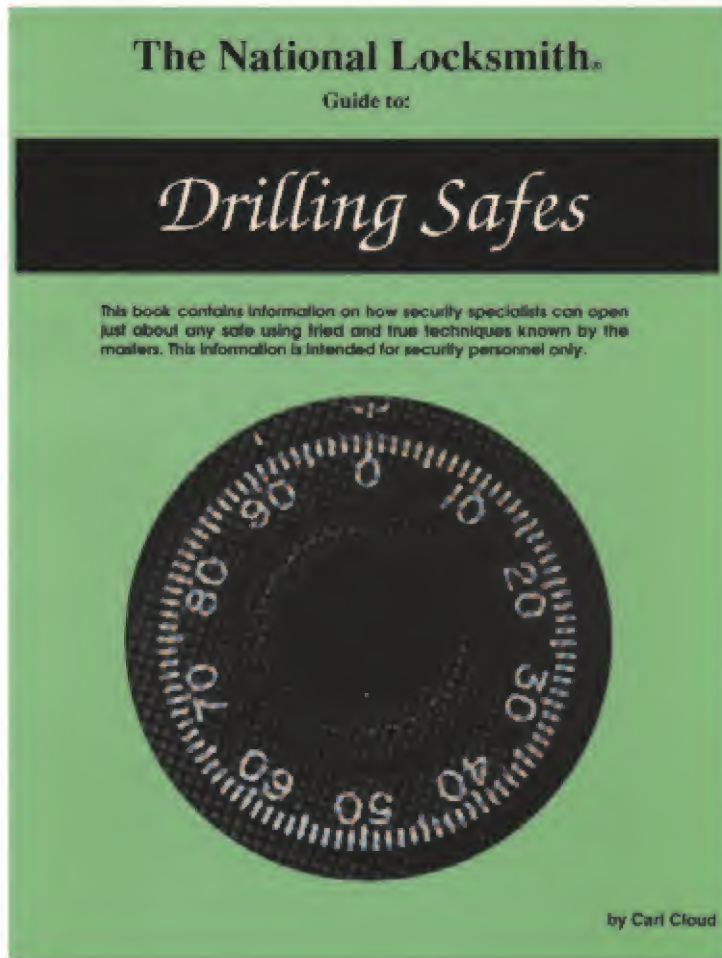
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#DMCD - 1

Drilling Safes



One of the most expert safemen in the country, Carl Cloud has written a very important book on safe opening.

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the bolt bar was moving in the correct direction. Total time to open the safe was about five minutes. No drilling or moving the safe was required. Repair, however was required.

The procedure needed to repair the unit consisted of replacing the bolt in the bolt bar, which had fallen to the bottom of the safe door. I then checked the tightness of the other bolts, and found that most of them were loose. I also tightened up the Allen head cap screws that held the pivots to the door. Once this was done, the bolt work moved freely and smoothly when the door was open.

I also worked through the combination lock, removed and cleaned the mechanism and tightened the dial ring screws. This is standard procedure on safes I have never worked on before. The unit was only two months old (from the dealer) but it really needed cleaning and tightening and adjusting.

As soon as I shut the door, the bolts worked hard, and it was a problem to throw the bolts fully. There is a "slop" set screw in the door. It is a flat headed slotted screw, which goes into the center bolt hole and impacts the center bolt only. Once I loosened it a couple of turns, the bolts worked great.

Just for fun, I turned out the screw a couple more turns to see how much tolerance (slop) there was in the door. With the screw turned out, there was about a 3/8" in and out slop in the door. This is not acceptable. The inner bolt receptacle holes are way larger than the bolts themselves. This gives massive tolerance for manufacturing the door. The setscrew was to take the slop out of the doors as well as providing a definitive adjustment for tightness.

Before drilling any safe, think about the problem logically, and see if you can come up with a less destructive means of attack. The relocker arrangement is shown in *photograph 8*. It is located to the left of the lock (as viewed from the outside of the door) and can be compromised by drilling next to the edge of the lock at the lock bolt height. You can drill to break the spring, cut the bolt, or drill 2-1/2" down from dial center to raise the device up.

Good luck, open and prosper! **TNL**



In the 1960's and 70's, the Volkswagen Beetle took the nation by storm. It was seen in every driveway, parking lot and highway across America. This vehicle proved to be a low cost, durable and fun means of transport that has survived the test of time. Luckily, my father worked for Volkswagen of America at the time, and my frequent visits to the plant provided me with a first hand peek at the research and development teams that contributed to the bugs performance. They all wore long white lab coats in a pristine shop with new tools all in order. They would gather around their projects like a human shield protecting a president. Upon the hydraulic lifts sat every imaginable model waiting to be dissected and reborn. You couldn't help but view the operation with awe and wonder.

At the same time I recall finding the publication called "Idiots Guide to Volkswagens" in a local book store. Funny thing was that there too, in the isle of this book store was a group of teenagers huddled together just like the R&D team. However, they were all flipping through the simplified pages of instructions that this manual presented for the common person to follow and understand. Needless to say this book flew off the shelves and quickly became a popular reference. Its contents appeared to be handwritten as if in a marbled school tablet, lines and all. With stick figures doodled among the instructions to serve as a reminder of the simplicity and ease of VW servicing.

This same concept of simplicity appears in a product by Visonic Ltd., called "Prox in a Box". Prox in a Box is an access control system that is easy to install and program. It does not require a PC for programming. One control unit can operate up to 4 doors and may be shared by 3000 users. For larger installations, units can be networked or "daisy chained" with three additional units to provide control up to 16 doors.

Prox in a Box utilizes Proximity readers to enable easy access without the need for passwords or codes. It will record and log every action. For example, when a cardholder presents an access card to the reader, it is logged with time, date and door used. This information can be exported to a printer or a PC, using the RS232 serial output provided. It uses a standard battery backup in the event of a power loss.

The Prox in a Box PIAB-KIT is supplied with the following components: (*See photograph 1.*)

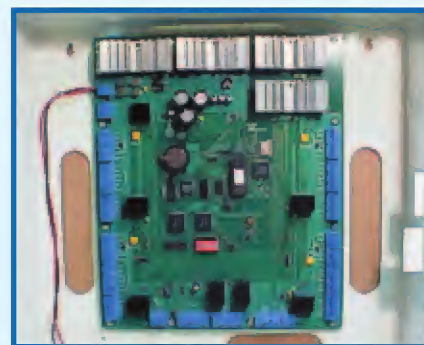
- PIAB Control Unit installed in a metal cabinet
- TRM - 1 Programming terminal
- RDR - 2 Proximity Readers
- Transformer 16.5 vac, 50va
- CRD - 25 pack of Access Cards
- Programming Guides
- Screwdriver

CONTROL UNIT:

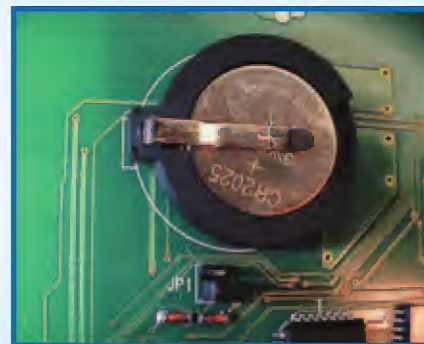
The PIAB control unit houses the circuit board containing the connections to the proximity readers, programming terminals, and external relays. (*See photograph 2.*) The control unit has a memory capacity of 3000 users, and 1000 events per controller. The controller has a real



1. The Prox in a Box PIAB-KIT.



2. The PIAB control unit houses the circuit board.



3. The controller has a real time clock and 3V lithium battery.

time clock with a CR2025 3V lithium battery to keep time and internal memory, even during a power outage. (See photograph 3.) It also is equipped with two low voltage 3A fuses that protect the control unit in case of a power surge. (See photograph 4.)

The metal cabinet housing is rather large, but certainly makes it easy to

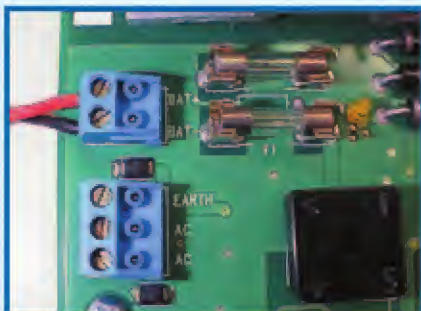
work within. The best part of this container is the simplified color schematic that is adhered to the door. (See photograph 5.) This “idiots” version of wire termination will allow anyone to install and properly terminate the connections with confidence. Aside from the fact that the manufacturer shows you exactly where the leads will go, they are also in color according to the proper wire use. (See photograph 6.)

To make things even more understood, you are provided pictures of the hardware, program terminal, prox reader, transformer and

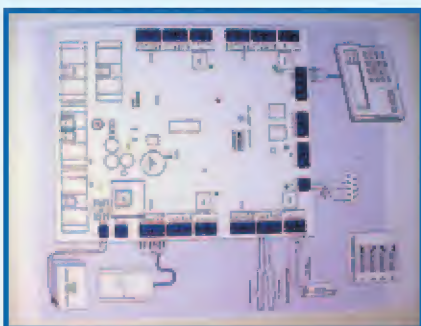
connection points. (See photograph 7.) Unfortunately there is no stick figures, but who could complain after such helpful considerations were given.

As mentioned, these control units can control up to 4 doors. The terminals in the container are grouped together according to each door. Each set of terminals are independent of the others which provides a fast, clean and easily understood wire nest, eliminating shared terminals. (See photograph 8.)

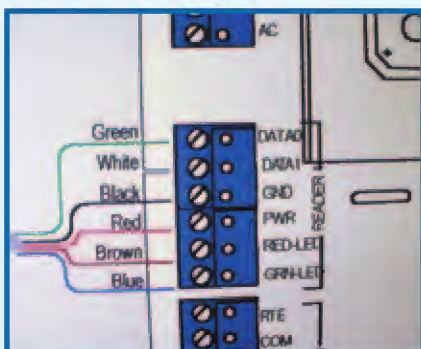
Each of these terminal blocks are removable to provide a more relaxing tie in. (See photograph 9.) There are



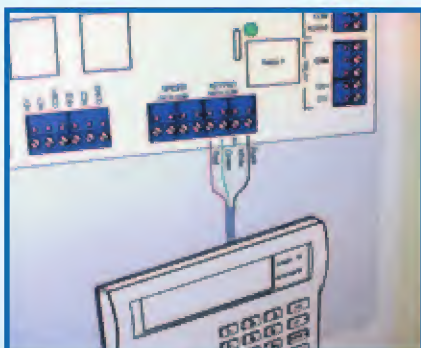
4. Two low voltage 3A fuses.



5. The simplified color schematic.



6. Color according to the proper wire use.



7. Pictures of the hardware and connection points.

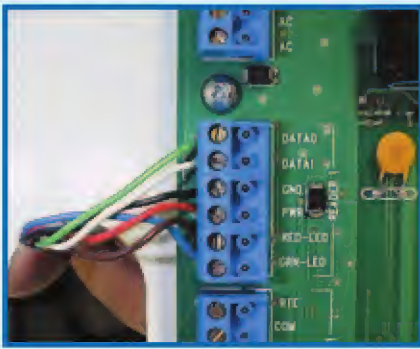
Ford 8 Cut Decoding Key Set

**FORD 8 CUT
DECODING
KEY SET**

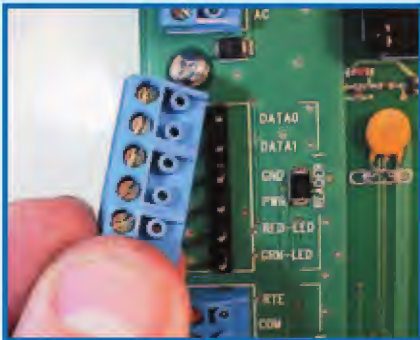
Complete with 143 specially cut keys and simple directions. You get door and ignition keys within just a couple of minutes.

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#FD - 8



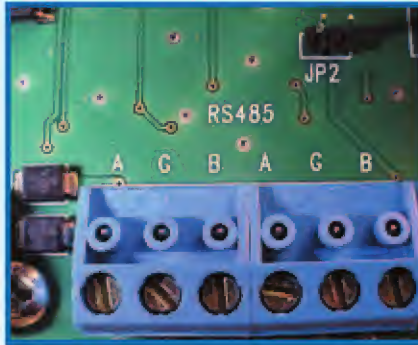
8. The terminals in the container are grouped together according to each door.



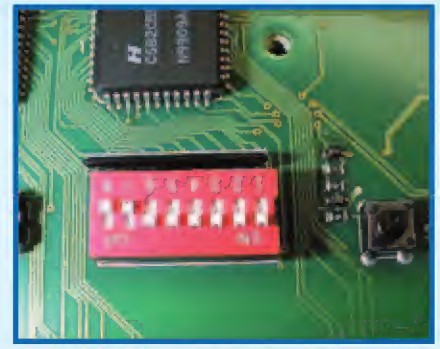
9. These terminal blocks are removable.



10. Terminal blocks for a RS232 connection.



11. Terminal blocks for a RS485 connection.



12. A dip switch block.



13. The RDR-2 proximity readers.

also terminal blocks for either a RS232 (see photograph 10) or RS485 connection (See photograph 11). The RS232 connection is used when operating with a single unit. The RS485 is used with more than one controller. The data is automatically updated from controller #1 to the others units via the RS485. The maximum distance between endpoint controllers is 4000 feet.

In photograph 12, you will see a dip switch block. These “dip” switches are used to identify the control unit address. In other words, they are positioned in a specific “on off” pattern depending upon the number of doors being used. The 6 leftmost switches are not used in doing this. The only ones you will need to be concerned with in this step, are the #7 & #8 switches. If you discover that this dip switch block was installed upside-down, don’t get confused, just identify the #7 & #8 switches and position as instructed. Next to the “dip switch” block you will see a small “Password Reset” button labeled RS2.

RDR-2 PROXIMITY READER:

The PIAB-Kit is equipped with the RDR-2 proximity readers that should be installed at the desired access points. (See photograph 13.) Additional readers can be purchased

separately. Proximity access cards are used as “keys” to open these doors. When in the presence of an RDR-2, the access card emits a coded RF signal that is read by the proximity reader. The proximity reader then forwards the signal to the PIAB controller. The control unit verifies that the card is valid and makes the decision as to whether it should energize an output relay that releases the lock. All activities involving the proximity readers is recorded and logged. This reader is a Weigant format that uses a tri color LED of green, red and amber indicator. It is 4-1/2” x 2-3/4” x 5/8” in dimension and utilizes a six conductor cable.

CRD-1 ACCESS CARD:

The controller is programmed to open specific doors at specific times and on specified days, when a valid CRD-1 access card or “key” is presented. Up to 3000 access cards can be stored in memory. In the event of a lost or stolen card, the access cards data can be easily deleted using the TRM-1 programming terminal. These access cards come in a pack of 25, supplied in the PIAB-Kit.

TRM-1 PROGRAMMING TERMINAL:

The TRM-1 terminal enables you

to set up the PIAB controller by programming the access cards, locks and other parameters of the system. All programming is done at the TRM-1 keypad. This terminal is a familiar alarm style keypad with a backbit 2 line LCD display. (See photograph 14.) On the lid that covers the buttons you will find a programming menu, or “cheat sheet” that will guide you through the different programming options. (See photograph 15.)

You can scroll through menu options by simply pressing the “up or down” buttons or by entering the corresponding number on the keypad of the programming terminal. The LCD display indicates the current status of the controller. In normal mode, the current date and time are displayed, and open locks are shown. In programming mode, menu options and fields are displayed.

INSTALLATION:

The Visonic Prox in a Box is a short stepped, straightforward installation requiring very little experience and time. The total steps involved on a simple one to two door install is about six steps.

- Step #1 - Mount Controller
- Step #2 - Install Locking device
- Step #3 - Install Proximity Reader

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#GM - 2



14. Alarm style keypad with a backbit 2 line LCD display.

Step #4 - Install Programming terminal

Step #5 - Power up

Step #6 - Program

That's it! Of course you need to run the wires into the controller and tie in to the terminal blocks, but the whole process has been made to be "idiot" proof. The overall speed and simplicity of this system is a response to the concerns of many who have found entry into the access control field confusing and intimidating. With all the assertive aids such as the pictograms and colored wire diagrams, along with a spacious control panel; it would be difficult to make an error installing this product.

Typically, the PIAB Control unit is installed near the door(s) that is to be controlled. The cabinet should be located near a power source. Keep in mind that the TRM-1 Programming Terminal should be located within a reasonable distance of Reader #1. This is due to the need of having to present the proximity card during the program mode. Unfortunately, this can be problematic if dealing with an extended installation where you are unable to have the reader in a reasonable range from the TRM-1.

This scenario is possible for several reasons. You may not want the controller accessible to the general public. You may also have additional doors many feet away from the TRM-1 and not have enough time to return during program time before it defaults. It is possible to mount the TRM-1 within the Control Cabinet or close to it, while using a spare reader also mounted or wired into the controller locally just for programming purposes, so that you can do it all at the control unit cabinet.

CONCLUSION:

The Visonic Prox in a Box system can provide a springboard for those who wish to enter into the field of access control as well as provide a fast money



15. On the lid you will find a programming "cheat sheet."

maker for the seasoned veteran. It has addressed many installation issues that technically could eliminate the need for installation experience. It allows you to quickly respond to a customer's needs by having a complete access system ready to go at a moment's notice. It all comes in a single, convenient box! The time it took to wire up this panel was minimal. I may be wrong, but for years I have heard many locksmiths saying that they just want to know "what wire goes where" without having to have a Ph.D. in technical reading. Visonic has appeared to remove much of the technical brainfood that is so often provided in other systems.

By doing this they open up the market to many who may have shied away. This does not mean that it is a perfect system. Improvements to the design of the TRM-1 to accommodate a port to accept a programming reader may relieve the need to run back and forth from the reader to the program terminal, or possibly having a reader within the actual TRM-1. This system is a "non volatile" one, in which it will not lose its system memory if the unit loses power. The proximity reader supplied is too large for use on narrow frames, so the option of the RDM-2 is available. All in all, I have found this "packaged" system to be a compliment to providing bundled services to the end user.

Similar to the Volkswagen Beetle and the popular service manual with stick figures, this is a thought out system based upon the "idiots" perception of the installation, service and programming. So for those of you who want to learn more, and get more experience in access control and proximity technology, this is a good way to start.

*For more information on the Prox in a Box contact Visonic at (860) 243-0833 or circle 307 on Rapid Reply. **TRM***



The 2000 Cadillac DeVille



by Randy Mize

In keeping up with the transponder transformation, Cadillac introduced the 2000 DeVille with GM's Component Set Strategy (CSS) column and the PASS-Key III or PK III transponder system. (See *photograph 1.*) Although similar to the CSS column and PK III systems introduced on the 1997 Buick Park Avenue, there are some small differences that are noteworthy.

Like the Park Avenue, Huf manufactures all the locks and keys. Unfortunately, with few exceptions, this means that locks and lock components are dealer-only items. Unlike the Park Avenue, the DeVille uses the much larger GM Corporate Head key design in both its master key (see *photograph 2*) and valet key (see *photograph 3*). To accommodate the larger bow of these keys, a larger knob is attached to the front of the CSS ignition lock cylinder.

Despite these small differences, in an emergency, the smaller key of the Park Avenue can be used and programmed into the DeVille. Also, should the cylinder need to be replaced, both the STRATTEC #704602 and BWD Automotive LC1354 can be used in a pinch; although the smaller size of these cylinders may have the same neat appearance as the original. (See *photograph 4.*)

Opening

Fortunately, the GM engineers did not pursue entrance security with the same fervor they approached the transponder security. Using a simple slide locking tool, this vehicle can be quickly opened.

Insert a hook tool into the door approximately 6" in from the door's edge and 6" to 8" down into the door. (See *photograph 5.*) Reach under the glass to make contact with the door lock button linkage. (See *photograph 6.*) Grasp the linkage and lift. (See *photograph 7.*)

Key Generation

If possible, retrieve a key code from GM Roadside Assistance. If this method is not feasible, you can use an H.E. Mitchell EZ-Reader, Determinator, or the SKT Wafer Reader to read a door or trunk lock to get a partial key. Although only a maximum of six of the 10 cuts can be obtained in this method, many key code programs have utilities that allow you to find all possible remaining combinations for finishing the key.





shroud. (See photograph 11.)

Raise the shroud and turn the cylinder to the START position. If you do not have a key, pick the lock or drill the lock to turn the cylinder to the START position. Then locate and depress the lock cylinder retainer at about the 12:00 position. (See photograph 12.)

CAUTION: Before turning the lock cylinder, note the following two warnings.

1. If picking or drilling the sidebar to turn this lock, the buzzer plunger must be raised to prevent damaging the buzzer switch (approximately \$150.00).

2. Disconnect the battery before turning the lock to the

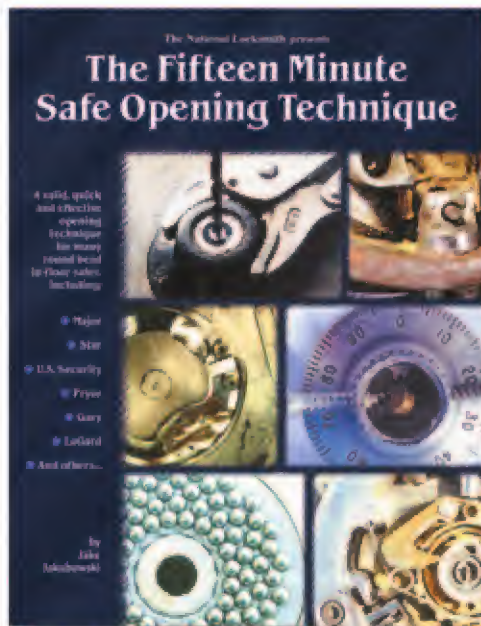
Ignition Removal

Although some of the parts are now made of plastic and formed a little differently, removing this lock is identical to all other CSS column lock removals.

The first step is to remove the tilt lever arm. Firmly grasp the arm and pull firmly to accomplish this. (See photograph 8.)

Next, use a T15 Torx to remove the lower shroud screws and remove the shroud. (See photograph 9.) Take great care when separating the top shroud from the bottom, as there are several tabs that connect these two pieces. (See photograph 10.)

With the lower shroud removed, use an E5 inverted Torx socket to remove the two bolts that anchor the upper

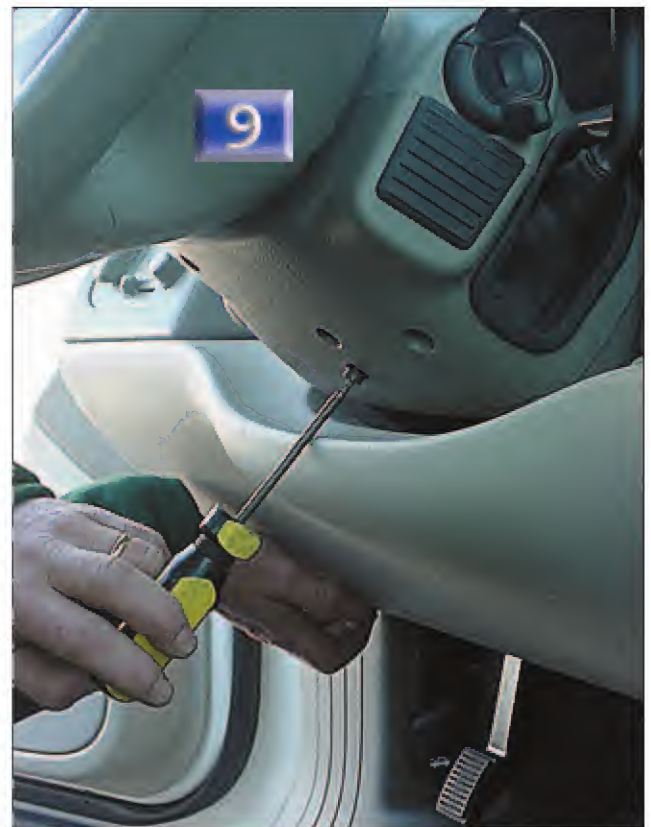


15 Minute Safe Opening

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 LaGuard style round head.

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START position. As an alternative, after setting the parking brake and chocking the wheels, the shift lever can be moved into the neutral or drive position, activating the neutral safety switch feature.

(For more in-depth information on the dangers and warnings of this column, visit Saber Tool Company's web site at www.sabertool.com; or order The National Locksmith's Guide to Steering Column Service.)

With the lock cylinder removed, the upper shroud reveals an all-plastic lock housing, and the PASS-Key III Theft Deterrent Module or TDM. (See photograph 13.)



To remove the door panel, first remove the door lock button. (See *photograph 16.*) This is accomplished by first releasing the small locking tab that holds the lock button to the lock rod. (See *photograph 17.*)

Next, gently lift the window/lock button control panel from the armrest area. Disconnect the wire harness from the panel, and set it safely aside. (See *photograph 18.*)

Now, remove the plastic trim panel behind the latch handle. (See *photograph 19.*) Removing this panel reveals a small Phillips head screw. Remove the screw. (See *photograph 20.*)

With all of these fasteners and panels removed, use a trim tool and gently pry the clips loose that hold the panel to the door. DO NOT TRY TO COMPLETELY PRY THE PANEL AWAY FROM THE DOOR! Two clips and the door handle are fastened in such a manner that pulling will cause permanent and costly damage.

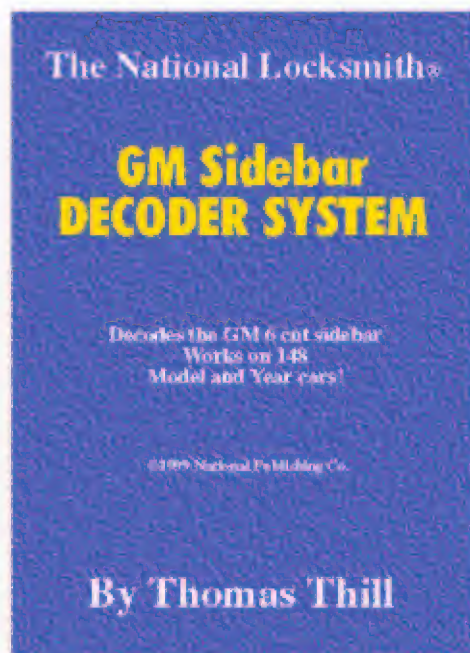
Door Lock Removal

The door lock on this vehicle is part of the handle. (See *photograph 14.*) While seemingly complicated, it is actually accessed quite easily once the door panel is removed. (See *photograph 15.*)



Once all the perimeter clips have been pried up and out, and the panel is fairly free to move, grasp the bottom of the panel and firmly lift up. This should release the panel from the door, allowing the electrical connectors to be disconnected. (See photograph 21.)

Once the panel is removed, you can view the two metal clips and the door handle that prevent the panel from being pulled straight off of the door. (See photograph 22.) Before the panel can be replaced, the two metal clips must be



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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removed from the door panel and slid back onto their mounting posts. (See photograph 23.)

As the panel is being placed back on the door, a small arm on the inside latch handle (see photograph 24) must properly mate and seat within the plastic slide attachment of the latch rod mechanism (see photograph 25).

With the door panel removed, a heavy sound panel must then be removed. (See photograph 26.) This panel is held to the door with several clips. To remove the clips, simply use a tool to depress their centers (see photograph 27) and lift the clips from the panel (see photograph 28.) With the clips



removed, gently set the panel down, but be careful. This panel is still attached to various harnesses. (See photograph 29.)

The handle is now easily accessed. Use a socket and remove the two screws that hold the handle in place. Be careful not to damage the switches and wiring that is

connected to the lock. (See photograph 30.) With the handle out of the door, the lock can be removed from the handle. (See photograph 31.)

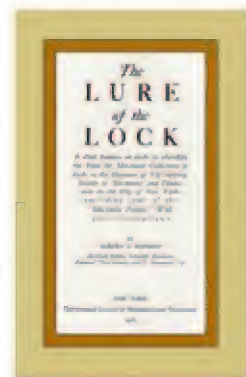
The Lure of the Lock

This hardcover book, compiled in 1928, features dozens and dozens of beautiful photographs on ancient through modern locks.



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#LURE







Trunk Lock Removal

The trunk lock is easily accessible via the electronic trunk release. Once open, it is necessary to first remove the license plate trim that covers the trunk lock. To remove the trim, lower the inside trunk panel cover. (See photograph 32.) Use a 10mm socket to remove all the screws that hold the trim piece to the trunk lid. (See photograph 33.) Remove the trim. (See photograph 34.)

A simple horseshoe clip is used to hold the lock to the trunk lid. (See photograph 35.) Before removing the clip, however, gently remove the electrical switch attached to the back of the lock. (See photograph 36.) Remove the clip and remove the lock. (See photograph 37.)

On-board programming procedures for GM's PKIII system

- Accepts a maximum of 10 keys.
- Requires Master key blank to do on-board programming. Valet key does not open programming mode.

Programming

Duplicating Key



1. Duplicate any working key onto new transponder key.
2. Insert working Master key into ignition lock and turn to ON position. The SECURITY light will light solid.
3. Wait for SECURITY light to go out (about 2 seconds), turn key to OFF position.
4. Insert duplicate key into lock and turn to ON position. The SECURITY light will light solid.
5. Wait for SECURITY light to go out (about 2 seconds), turn key to OFF position.
6. The duplicated key can now be used to start and operate the vehicle.

Generate a New Key

1. Once key biting has been determined, cut biting onto an un-programmed Master key blank.
2. Insert key into ignition lock and turn to ON position. The SECURITY light will light solid.
3. Wait for security light to go out (about 10 minutes), turn key to OFF position.
4. Repeat steps 2 and 3 two more times (3 total cycles). After last cycle, the key is programmed.
5. After key is generated, use key duplicating procedure to duplicate up to 10 working keys.

Misc. Information

Lock & Key Manufacturer: Huf

Security: GM PASS-Key III

Key System: GM 10-Cut

Key Blank: Ilco B99-PT (Master), Jet B99-PT (Master)

NOTE: In an emergency, STRATTEC's 598936 or 599260, Ilco's B97-PT, or Jet's B97-PT key blank can be used.

Ignition: Dealer only. In an emergency, use STRATTEC 704602 or BWD LC1354.

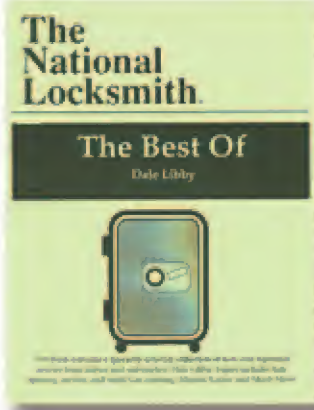
Door/Trunk: Dealer Only.

Service Kit: No known kit fits the original locks.

PKIII Programming: All keys can be programmed using GM's PKIII on board programming, or GM's Tech II scanner.

TNL

The Best of Dale Libby



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#DALE

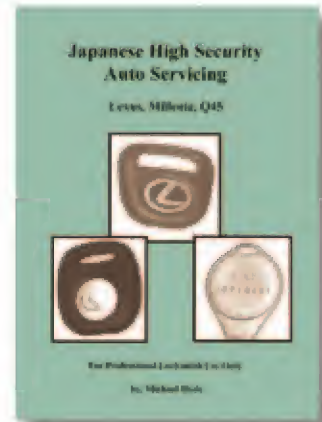
Safe Opening Articles 1987



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#SA - 1

Japanese High Security



[CLICK HERE TO LEARN MORE](#)

#JAP - 1



THE CASH STATION

by Mark Daniel

Fujitsu

Manufacturer
Fujitsu ATM

Model #
7030AP

Safe Manufactured by
Armor Safe Corp., San Marcos, CA.

Safe Model #
150 (24 hour level 1 security)



Handle Type

L Handle

Handle Location

18-5/8 inches down from top of door. 6-3/8 inches from opening edge.

Handle Rotation

Clockwise to open.

Lock Handling

Vertical Up (VU).

Dial Center to Handle Center

3-1/2 inches down on center.

Dial Location

15-1/8 inches down from top of door. 6-3/8 inches from opening edge.

Number of Door Locking Bolts

One full-length bar.

Door Locking Bolt Locations

Opening edge only.





Fujitsu

Door Locking Bolt Diameter

1/2 inch

Door Thickness to Lock Case

7/8 inch

Door Thickness to Back of Lock

2 inches

Lock Type

LaGard

Lock Description

Three wheel, key-changeable lock with silent alarm feature. There is a micro-switch at the bottom of the lock.

Lock Notes

There is an additional gate on the first wheel. When you add 10 numbers to the first wheels combination, the lever will still drop-in. This activates the micro-switch and the alarm when the bolt is retracted.

Lock Case Thickness

1-1/8

Number of Wheels

3

Driver Location

Rear

Lock Handling

Vertical Up (VU)

Drop-In Location

72

Forbidden Zone

0-20

Lock Opening Procedures

4xL to first number (add ten numbers for silent alarm).
3xR to second number, 2xL to third number, 1xR until dial stops.

Lock Drill Point

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

Lock Relock Trigger Type

Wire Spring

Lock Relock Trigger Drill Point

7/8 inch left of dial center. 1-5/8 inches up. Hook with a wire and pull towards front of safe.

External Relock Device Type

Spring loaded plunger

External Relock Device Drill Point

8-1/4 inches from opening edge. 12-1/4 inches down from top of door.

There have never been accurate statistics kept on the number of injuries or occurrences of death from being trapped in a car trunk. However, there have been several. There are many ways that someone can become trapped with little or no escape: robbery, kidnapping, or just a child playing and accidentally becoming locked in. Vehicle trunk entrapment and ways to limit such occurrences will soon be at the forefront of concern thanks to Janette Fennell.

In 1995 a pair of armed men confronted Mrs. Janette Fennell and her husband Greg, in their garage. They forced the Fennell couple into the trunk of their car, while their 9-month old son was in the baby seat in the back of the car. As you can imagine, sheer panic set in.

had located the interior trunk release cable.

When they returned home, the baby was still in the garage unharmed.

The Fennell's were luckier than most that are robbed and stuffed into an automobile trunk. After that event Janette Fennell vowed with a vengeance to try to stop this from happening to anyone else.

A simple solution to this problem is a trunk release button installed at the factory in all car trunks. Janette searched the Internet and began pulling news reports, court documents, and all other information on trunk lock-ins and was astonished at what she found. Since 1970 more than 1,300 people have been victims of trunk entrapment. Of these people some 275 victims did not survive. She

Over the course of four weeks, 11 children died after accidentally trapping themselves in car trunks. The deaths made immediate action necessary. It was inexcusable that it took the deaths of 11 children to finally bring national attention to this issue. In 1998 the National Highway Traffic Safety Administration (NHTSA) put together an expert panel on trunk entrapment and invited Mrs. Fennell to give her data to this panel. The panel made its recommendations in June, 1999 and paramount among them was that the NHTSA requires all new vehicles be equipped with internal trunk release mechanisms by the year 2001.

Nothing will change until the NHTSA writes the regulations and it's on the books. Now all Ford, Lincoln, and Mercury lines are equipped with

CAR TRUNK TRAGEDIES

*The deadly truth
and how to
prevent it.*



by Frank Markisello



The bandits removed the car seat with the baby in it and placed him on the garage floor. They then started the car and drove to a remote location, with the baby left in the garage and the Fennell couple in the trunk.

The Fennell's tried to escape by pulling at everything in the trunk that they could grab including wires, the carpet and lights. The robbers then stopped the car, opened the trunk and robbed the Fennell's at gunpoint, taking their jewelry and money. Then they closed the trunk and left the Fennell's for dead.

After the robbers left, Mrs. Fennell felt a cable sticking out of an area of carpet that they had ripped away. They both pulled on the cable and to their surprise the trunk released. Unbeknown to them at the time, they

called the FBI and the National Bureau of Criminal Statistics and was floored to find out that no one had kept accurate records of crimes involving trunk entrapment.

In 1996 Janette Fennell founded an advocacy group named TRUNC (Trunk Releases Urgently Needed Coalition). Janette contacted car companies and the government about these issues, but auto makers did not want to install releases inside the trunks of their new cars. She then met with Congressman Matt Stupak of Michigan. After the two met, Congressman Stupak has been involved in legislation requiring emergency trunk releases on all vehicles.

The urgency of their cause suddenly intensified in July, 1998.

interior trunk releases handles that can save a child or adult who is trapped in the trunk. In addition, General Motors is offering retrofit trunk releases for most of its cars dating back to 1990. I checked with a dealer and they said that it costs about \$50.00 for the unit.

The NHTSA panel recommended that manufacturers should base their designs for the internal trunk releases upon the cognitive and physical abilities of young children. The panel reasoned that an internal trunk release mechanism that is designed to be operated by small children, would also work well for adults.

By December, 2000 the NHTSA panel on trunk entrapment should reconvene to assess progress made in implementing the above

recommendations. There have since been numerous reports regarding trunk entrapment on quite a few TV programs including Oprah, and in magazines such as Extra, Car & Travel Magazine and Redbook Magazine.

The following is a trunk release status list for many of the leading car manufacturers:

TBD (To Be Determined); MY (Model Year).

BMW

Retrofit Kit: Available Spring/Summer 2000

Estimated cost: TBD

Models/Model Years: TBD

New Car Design: Models/Model Years: TBD

MY to complete installation: TBD

Comments: An internal trunk release is under development. In addition, BMW has offered release devices that, when pulled allow the rear seats to be folded down to access the passenger compartment. These releases were not designed specifically to address the problem of trunk entrapment. They are currently offering as optional equipment in some 4-door models.

The 2000 MY 3 series 2-door models will be introduced with folding rear seats as standard equipment.

Daimler Chrysler

Retrofit Kit: Available: Summer 1999

Estimated cost: TBD

Models/Model years: Most 1993 and later years.

New car Design: Models/Model years: TBD

MY to complete installation: TBD

Ford Motor Company

Retrofit Kit: Remains under study.

Have focused company efforts on standard fit trunk releases.

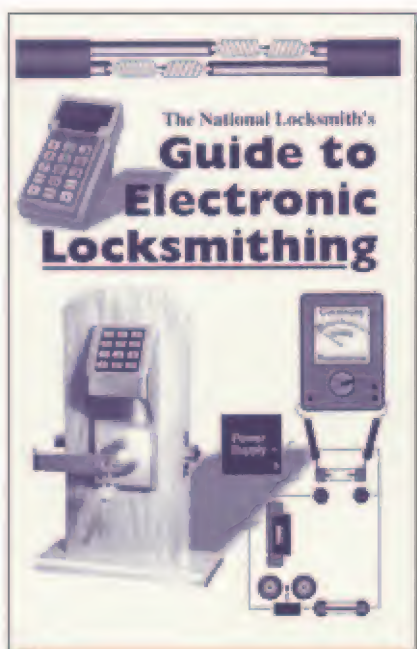
New car Design: Plan to include internal trunk releases as standard equipment in all passenger cars began on 6/22/99 with the 1999 Crown Victoria and Grand Marquis. As of 2/14/00, all but one of the 2000 MY Ford, Lincoln, and Mercury passenger cars were fitted with an internal trunk release. The phase-in will be complete with the Ford Focus on 7/17/00.

Comments: Ford's inside trunk release is cable-operated with a T-shaped handle. The handle is sized for

a child's hand and is made of polypropylene with a phosphorescent "glow in the dark" additive, so it needs no electrical power. The handle is quick charging and long-lasting (up to 8 hours when fully charged). The handle operates with a pull motion and is marked with symbols to indicate its operation. It operates with low effort and requires only one inch of travel - factors intended to help make the trunk release system child-friendly.

Through December 1999, over 585,000 Ford, Lincoln and Mercury vehicles were built with standard fit internal trunk releases.

Ford has sponsored several educational initiatives warning of the dangers of trunk entrapment including a Family Safety Bulletin in the July 1999 edition of Sesame Street Parents Magazine. In addition the company's Safety Advice Card was revised to add a warning about trunks and was in production in September 1999. Applicable owner guides and the Ford safety web page were updated to include warnings of the dangers of trunk entrapment.



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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General Motors

Retrofit Kit: Available: March 1999

Estimated Cost: \$50 Installed

Models/Model Years: 1990-2000

passenger vehicles with rear compartments except 1990-1991 Buick Reatta, 2000 Buick LeSabre, 1990-1993 Cadillac Allante, Fleetwood Brougham, 1997-2000 Cadillac Seville, 2000 Cadillac Deville, 1990 Chevrolet Caprice, 1990-1991 Chevrolet Cavalier, 1990-1996 Chevrolet Beretta, 1990-2000 Chevrolet Metro/Prism, 1998-2000 Chevrolet Corvette, 2000 Chevrolet Impala, 1990-1992 Oldsmobile Toronado/Trofeo, 1990-1991 Pontiac Sunbird, 1990-1993 Pontiac Lemans, 2000 Pontiac Bonneville.

New Car Design: Phosphorescent T-handles in all vehicles with trunks beginning 1/1/01. Phosphorescent handle plus a heat and motion sensitive release sensor in Impalas and Monte Carlos as of 7/00. Sensor plus phosphorescent handle in other vehicles beginning in 2001.

Comments: 2500 retrofit handles have been shipped to dealers. Other trunk safety efforts include lockable pass-thrus, the inclusion of trunk safety in public service campaigns, and the brochure "Trunks are for Elephants, Not for Kids."

Honda

Retrofit Kit: Available: as soon as feasible

Estimated cost: TBD

Models/Model Years: TBD

Comments: Since 1990 four Honda Models have been equipped with fold-down rear seat backs that can be unlatched from inside the trunk by pulling a release handle(s). This feature has the potential to prevent trunk entrapment. Honda plans to study the GM and Ford models.

Hyundai

New Car Design: Hyundai has been installing an emergency trunk release feature on all of its vehicles for over one year.

Isuzu

Comments: Isuzu does not import into the US any vehicles with trunks and has not done so since the early 1990s. The majority of Isuzu produced passenger cars that were sold in the US are over ten years old. There are

no plans at this time to produce a retrofit trunk safety kit.

Mazda

Retrofit Kit: Currently under consideration, no decision has been made yet.

New Car Design: Models/Model Years: all 2000 MY vehicles with trunks, according to the following production schedule: 2000 Protégé in December 1999, 2000 Miata in February 2000, 2000 Millenia in February 2000, and 2000 626 in May 2000.

Comments: The internal trunk release incorporates a T shaped handle that opens the deck lid when pulled and is designed to glow in the dark for several hours following brief exposure to ambient light.

Mitsubishi

Retrofit Kit: Available: first kit available by March 2000, remaining kits available shortly thereafter

Estimated cost: \$25-33, depending on model.

Models/Model Years: 1999-2000 Galant kit available as a dealer-installed part at the end of March 2000. The next vehicle to have the trunk release device part available at dealerships is the 1997-2000 Diamante, followed by the 1997-2000 Mirage and the 2001 Eclipse Spyder. **New car Design:** "T" shaped trunk release handles will be factory installed beginning with 1/1/01 production.

Comments: "T" shaped trunk release handle is still under development.

Information regarding the trunk release devices will be included in future product training guides and consumer safety videos for the 2001 MY. Mitsubishi is also exploring opportunities to partner with dealers for public education events in 2000 to include this topic.

Nissan

Retrofit Kit: Available: later this year

New Car Design: Models/model years: 1990s-era Nissan and Infiniti models that have trunks, beginning with higher volume models.

Models/model years: available as a dealer option later this year on new Nissan and Infiniti vehicles that have trunks.

Comments: To alert customers to the

consequences of trunk entrapment, Nissan will include in owner's manuals information regarding how to avoid trunk entrapment. The information will be included when manuals are next printed.

Porsche

Retrofit Kit: Existing models already have design features which reduce the potential for entrapment: a small trunk and a lid with a relatively grip-less underside, an outboard edge which would be out of the reach of a small child when open and a level of resistance when open that may be greater than the force a small child could exert.

New car design: Models/model years: TBD

MY to complete installation: TBD

Comments: Porsche looks forward to working with the Expert Panel to develop recommendations that will reduce the likelihood of injury associated with trunk entrapment.

Saab

New Car Design: Models/model years: available on certain 2003 MY vehicles.

MY to complete installation: TBD

Comments: Until the introduction of the Saab 9-5 Sedan for MY 1999, Saab produced only hatchback and convertible [with small trunks] models for the past several years. Saab has consulted with General Motors regarding GM's research, and sees promise in new passive technologies.

Subaru

Retrofit Kit: Available: September 1, 2000

Estimated cost: less than \$50

Models/model years: 1995-2000 MY Legacy sedans, 1993-2000 MY Impreza sedans.

New Car Design: Models/model years: available on new 2001 and 2002 MY cars produced on and after 1/1/01.

Comments: Retrofit kit design is a phosphorescent handled lever that attaches to the key lock activation rod to the latch release lever. Approximately 2 to 3 centimeters of movement of the handle will activate the latch release. Plan to make Subaru owners aware of the availability of the retrofit kits through Subaru Owner

Publication "DRIVE" Magazine and through postings at Subaru dealers.

Subaru has already included language in Owner's Manuals warning of the precautions necessary to prevent young children from locking themselves in the trunk.

Suzuki

Retrofit Kit: Available: Summer 2000

Estimated cost: TBD

Models/model years: all vehicles with trunks.

New Car design: Models/model years: all vehicles with trunks. Not yet able to specify when these devices will be incorporated into vehicle production.

Comments: Retrofit kit will include an illuminated interior trunk release handle.

For Suzuki vehicles with folding rear seatbacks that provide a pass-through to the trunk, Suzuki will be providing rear seat tethers as a part of the retrofit kit. Suzuki is also planning to provide rear seat tethers in new vehicles with folding seatbacks at the same time that the interior release handles are incorporated into vehicle production.

Toyota

Retrofit Kit: Available: hope for Fall 2000

Estimated cost: TBD

Models/model years: 1993-2000 Lexus LS 400, 1992-2000 Lexus GS 300 & 400, 1992-2000 Lexus SC 300 & 400, 1992-2000 Lexus ES 300, 1995-2000 Toyota Avalon, 1992-2000 Toyota Camry, 1999-2000 Toyota Camry Solara, 1994-1998 Toyota Celica Coupe, 1990-1995 Toyota MR2, 1993-2000 Toyota Corolla Sedan, 1991-1999 Toyota Tercel, 1992-1999 Toyota Paseo, 2000 Toyota Echo.

New Car Design: Models/model years: all 2001

MY vehicles with trunks: Lexus LS 430, Lexus GS 300 & 400, Lexus IS 300, Lexus ES 300, Toyota Avalon, Toyota Camry, Toyota Camry Solara, Toyota Corolla, Toyota Echo and Toyota Primus.

Comments: Toyota reports that the inside trunk release for new cars is an easy to use luminescent handle that can be readily seen and operated by children. The retrofit kit is planned to be a similar design and will be available at any Toyota or Lexus dealer service or parts department.

Trunk releases are not planned for certain models because there is easy access to the passenger compartment from the luggage compartment or it is not possible to close the hatchback from the luggage compartment. These models are: Lexus LX 470, Lexus RX 300, Toyota Land Cruiser, Toyota Sequoia, Toyota 4Runner, Toyota RAV4, Toyota Sienna, Toyota MR-Spyder and Toyota Celica.

Volkswagen

Retrofit Kit: No retrofit devices available at this time.

New Car Design: No production systems released at this time.

Comments: Volkswagen has reviewed NHTSA's Notice of Proposed Rulemaking and would implement systems to comply with any NHTSA requirements that are issued. Volkswagen and Audi intend to utilize the time available until the effectiveness of the NHTSA Standard to develop appropriate design solutions, and note the potential conflict with FMVSS 206 for vehicles that have folding rear seats or removable partitions between the occupant compartment and the rear door.

Volvo

Retrofit Kit: Currently studying the issue.

New Car Design: New Volvo S-80 Sedan has an internal release system in the trunk to permit the rear seat to be folded down from the inside, permitting exit from the trunk. Volvo plans to include information on trunk safety in next version of the owner's manual.

Comments: The system in the new Volvo S-80 does not meet the requirements in NHTSA's proposed rulemaking. Volvo is investigating trunk release systems for implementation that would meet the requirements in the rulemaking.

To address this issue of trunk releases for old and new vehicles, I have designed a device

called the Quick-Out that can be installed on virtually all automotive trunk locks. It allows a child or adult the ability to release the latch if trapped inside. This device glows in the dark and is so simple to use that with just the pull of a finger the trunk



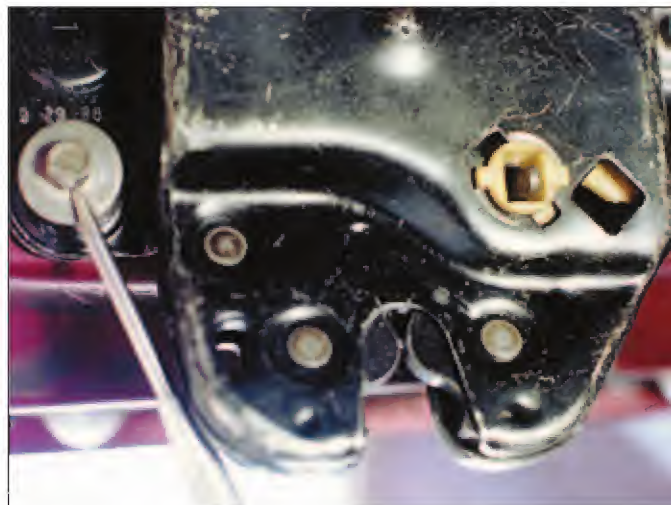
1. With just the pull of a finger the trunk will pop open.

will pop open. (See photograph 1.) It can be installed on cars with electrical locks, manual locks or even cars with cable releases in about 15 to 20 minutes.

Quick-Out Installation:

1. First remove the latch mechanism from the trunk lid. There will usually be two to four bolts securing it. (See photograph 2.)

2. Fish the wire from the Quick-Out through any opening on the side of the latch mechanism. (See photograph 3.)



2. Remove the latch mechanism.



3. Fish the wire through any latch opening.



4. Wrap the wire around the release lever.

3. Wrap the wire around the release lever in the latch mechanism and back through the opening, exiting the latch. (See photograph 4.)

- If the car is equipped with an electric trunk release opener, wrap the Quick-Out wire around the solenoid lever. (See photograph 5.)

- If the car is equipped with a front compartment cable trunk release, wrap the Quick-Out wire around the lever where the cable is connected.

(See photograph 6.)

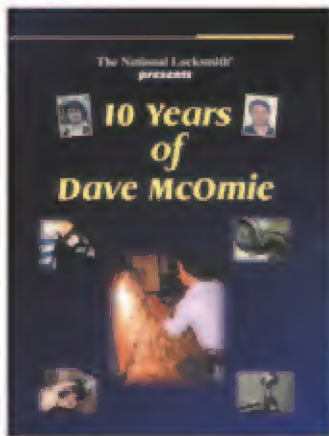
- If the car is a General Motors or features a similar latch, wrap the Quick-Out wire around the release lever. (See photograph 7.)

4. Pull the excess wire through the latch until the ring comes in contact with the mechanism. Then wrap the wire around the screw attached to the side or the Quick-Out pull ring.



5. Wrap the wire around the solenoid lever.

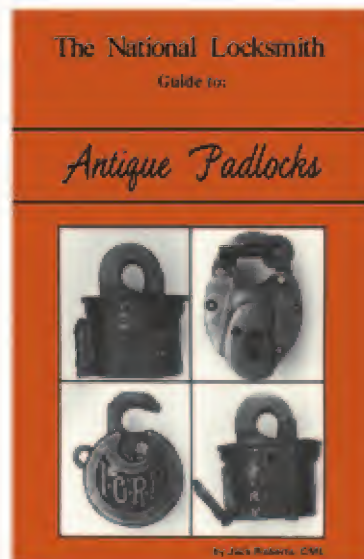
10 Years of Dave McOmie



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#DM - 10

Antique Padlocks



Finally there is a book to give you all the information you need about old interesting locks.

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#PAD - 1



6. Wrap the wire around the cable connection.



8. Wrap the wire around the Quick-Out screw.



7. A General Motors latch attachment.

Tighten the screw and cut excess wire off. (See photograph 8.)

5. Reinstall the lock mechanism on the trunk lid, being sure the tailpiece from the lock cylinder is in the latch slot on the rear of the mechanism. (See photograph 9.)



9. Reinstall the lock mechanism.

6. Use the

square piece of Velcro supplied with the Quick-Out and install it on the trunk lid. The Quick-Out pull ring already has Velcro attached to secure the ring to the trunk lid. (See photograph 10.)

Photograph 11, shows the Quick-Out pull ring glowing in total darkness.

Anyone can have a Quick-Out Trunk Release installed today and not wait for legislation to pass. By then, it could be too late for someone. We as locksmiths who deal in security and safety everyday, can help in accomplishing the task of eliminating the dangers of trunk entrapment today.

For more information on AAble's Quick-Out Trunk Release Mechanism contact: AAble Locksmiths, 86-19 97 Ave., Ozone Park, NY 11417, Phone: (718) 847-1377. Circle #323 on the Rapid Reply Card.



10. Attach the Velcro to the trunk lid.



11. The Quick-Out pull glows in the dark.

Transponders



CLICK HERE TO LEARN MORE



#TS - 2001



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*



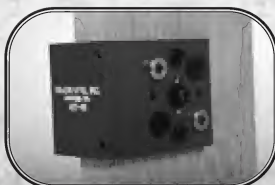
15th Prize

Slide Lock's Master "Z" Tool Set



16th Prize

ESP Products Sampler



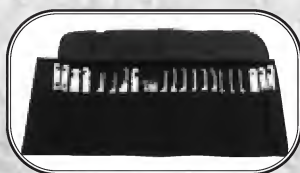
17th Prize

Major Manufacturing's
HIT-111 Drill Guide



18th Prize

Abus Padlock's Marine
Padlock Display (\$120 Retail)



19th Prize

Mark Bates Associates
Falle Pick Set



20th Prize

Baxter JV-1 & JV-5
Code Books



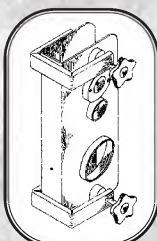
21st Prize

Sieveking Products
Squeeze Play



22nd Prize

Rodann's TX 500
RX 5990 Wireless Door
Annunciator System



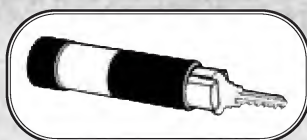
23rd Prize

A-1 Security Manufacturing
Installation Jig



24th Prize

Keedex Sampler



25th Prize

Framon
Impressioning
Handle



26th Prize

Gator Tool Multi-Purpose
Facecap Tool

These Prizes Awarded Each Month!

- 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.

Tips Start
on Next Page





**BWD KWIKIT WINNER:
Stamp Machine
Opening Tip**

The call was to open a locked stamp machine at the Post Office. The machine had a Medeco cylinder (in a push-in handle like on vending machines) and the key was lost. The maintenance man had tried to drill the cylinder and wound up calling me to get the unit open.

I knew there was no way to pick the lock and there was not another unit like this one that I could look at to check for a drill point. I took a chance and drilled a 1/4" hole in the side of the machine, 1-3/4" back from the face and 3/4" of an inch above the top of the Medeco cylinder. (See illustration 1.)

I used a modified car-opening tool to reach through the hole and depress the locking dog on the inside of the cabinet. As you can see by the illustration, the locking dog is on the right side of the lock as you face the cabinet. I applied inward pressure to the handle as I depressed the locking dog and the lock sprung open.

The hole on the side of the cabinet was easily repaired and painted to match the finish on the machine and I installed a new lock. The opening took less than fifteen minutes.

Later, looking at some change machines in coin laundries and car washes, I determined that this same trick would work on those as well, provided they have the pop-out handle.

*Lee Whiteford
California*

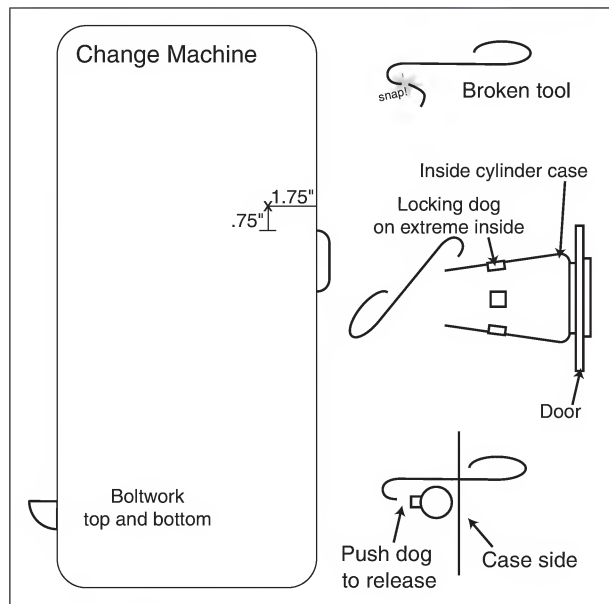


Illustration 1.

Jake's Jabber...

"Seven! Seven, is the winner!"

It's July and July means ALOA. This year ALOA means Las Vegas and Las Vegas means you get a chance to try your luck. The problem is that the odds are with the house. Like my granddaddy used to say: "Son, y' jes' can't beat the man at his own game!"

Like every rule that was ever formulated, there is an exception to this one. Why? Because in Las Vegas, the locksmiths attending the convention and tradeshow have a sure-fire, can't-lose, one hundred and ten percent guaranteed pay-off! The ALOA trade show and classes.

Here is the opportunity to visit one of the top vacation spots in the country, maybe win a little on a slot and at the same time see bunches of new products, tools, books, and van equipment and learn skills that will make you a winner all year long.

And all of it, including the ALOA classes are geared to make you a more competent, knowledgeable locksmith.

At the ALOA trade show and convention, the odds are stacked in your favor for you to come home a winner.

As many of my readers know, I am a proponent of product knowledge, and the skills necessary to utilize that knowledge. It's productions like ALOA's annual convention and trade show - as well as the conventions and trade shows of state associations and distributor shows - that provide locksmiths a venue in which to either bring their skills up to their full potential, or to learn new skills and ways of implementing them.

Try to make Vegas this year and see what's happening in your industry and how you can take advantage of the changes, the new products and the new procedures that are coming into play.

While you're at the show, take time to come by *The National Locksmith's* booth and say hello.



*by Jake
Jakubowski*



**WEDGECON™ KEY
EXTRACTOR KIT WINNER:
Maid Key Function**

My customer had a weekly maid service and wanted me to key her locks in such a manner that the maid's key would only work when the owner wanted it too.

Using a standard Schlage mortise cylinder in a Lori deadbolt, I came up with the following solution.

I drilled six holes at the eleven o'clock position in the mortise cylinder - which would allow me to create a second shear line. Next, I tapped the holes to accept Allen screws and pinned the new chambers (except for number 6) to accept the maid's key as well as the

"master." (See illustration 2).

The master works the cylinder at all times, but the maid's key will only work when the homeowner "sets" the maid's function on the lock with the master key.

To activate the maid function, the owner inserts her key with the plug at the twelve o'clock position and turns the plug to the eleven o'clock position and removes her key. Now the maid's

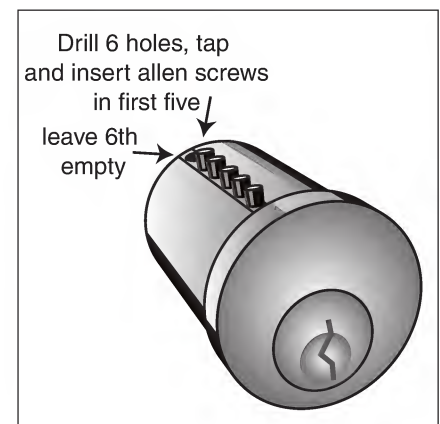


Illustration 2.

key can be used to lock or unlock the door, but can only be removed from the lock in the eleven o'clock position.

To deactivate the maid's key, the owner inserts her key in the plug and turns it back to the twelve o'clock position and removes the key. The lock is now in the normal operational mode and the maid's key will not operate the lock.

Of course, the modified cylinder does not lose its rekey potential and can be rekeyed quickly in the event that either key is lost or stolen.

*David Craig
Illinois*



**STRATTEC RACING
JACKET WINNER:
Easy
Contour/Mystique
Key**

Here's an easy way to generate the door key on 1996 and up Ford Contour and Mercury Mystique. First open the trunk and remove the clip for the trunk lock. Next, pull the trunk lock out of the car. The lock slides out in your hand. Then, turn the lock over, insert a key and read the wafers. These wafers are in your sight and the depths can be very easily read.

After determining the depths, cut the key.

*Daniel Mandell
North Carolina*



**HPC AIR WEDGE™
WINNER:
Another Contour
Opening Tip**

In the March issue of *The National Locksmith*, I read about opening the Ford Contour/Mystique with an under the window tool. Here is how I open them. It is much simpler and the chance of damage is very low.

I use an "L" tool on the right rear door. The arm of the L is 4-1/4" long. Gently wedge the window and with the tool facing the rear of the car, insert the tool slightly forward of the exterior door handle.

Lower the tool under the exterior door handle and slide the tool rearwards until it contacts the door/wheel well frame. Continue moving the tool to the rear following the contour of the door until the tip of the tool is under the rear window channel.

Now turn the tool inwards as you continue moving the tool to the rear, until the shaft of the tool is tight to the window frame and pointing to the inside of the car.

Twist the tool, bringing the tip to the front of the car and unlock the door. To remove tool, just reverse everything.

What you are contacting is the bell crank. Using this method you don't have to worry about catching wires inside the door or damaging the privacy film - or tint - on those cars that are so equipped.

I wouldn't make the arm of the tool any shorter than 4" (you might not reach the bell crank) or longer than 5" (it might bind on the inner panel). I had one customer comment that I was faster then he was using his key!

*Art Stevens
Canada*



**SARGENT &
GREENLEAF 4400
SERIES SAFE DEPOSIT
BOX LOCK WINNER:
Securing Padlocks
and Light Bulbs**

Here is a tip on how to secure your customers padlocks against theft and

IC Cores: Small Format



Everything you ever need to know about
how to sell, service, install and
troubleshoot interchangeable cores!

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#ICSF - 1

loss. I have used this method on construction and storage trailers where merchandise and equipment is stored. Once an employee unlocks the lock, they usually lay the lock down and before you know it the locks are missing.

To prevent this type of loss, I grind a spot on the side of the lock and weld a length of chain to the lock and then secure the chain to the trailer. Once you unlock the padlock it cannot be lost and it is available when the customer or their employees are ready to relock the trailer.

Also, here's an idea that has saved me some broken bulbs on the Master light from Lockmasters. I attached a plastic tube on the side of the case to insert the light when you are not using it. This keeps the bulb out of harm's way.

*Larry Teal, CRL
New Mexico*

Editor's Note: Larry, thanks for your tip. You may or not be aware of it, but most padlock manufacturers offer chains and cleaves that attach to the shackle of their padlocks for the same purpose as you outlined in your tip. Of course, the procedure you describe seems to be really

heavy-duty.



**A-1 SECURITY
PRODUCTS WINNER:
Knock! Knock!**

I am occasionally asked to install a door knocker. Determining the location of the hole for the top screw is easy, but the bottom one is more of a challenge, since a template is usually not available.

I made a bottom hole locator from a 10-32 bolt by cutting the head off the bolt and grinding the cut end to a point.

To use this locator, I just screw the sharpened bolt into the bottom hole of the knocker and install the knocker in the previously drilled top hole. Pressing on the bottom of the knocker will cause the point of the tool to scratch a little mark in the paint of the door exactly where the bottom mounting hole should be.

Then remove the locator bolt, drilling the hole and completing the installation.

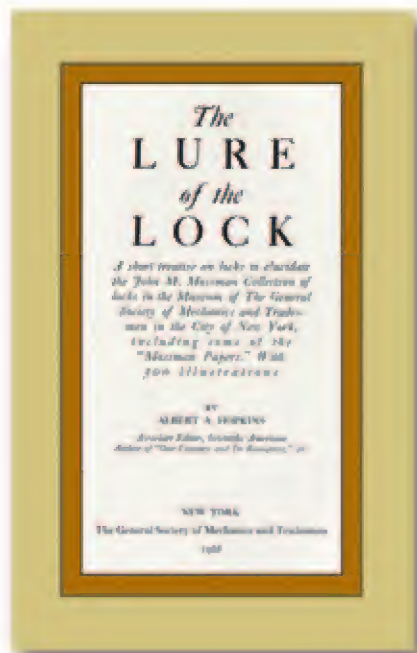
I install enough doorknockers that I have made a few "locators" in



Illustration 3.

different sizes to match the bolts of most knockers I will encounter.

*Ted Swirsky
New Jersey*



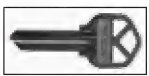
The Lure of the Lock

This hardcover book, compiled in 1928, features dozens and dozens of beautiful photographs on ancient through modern locks.

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#LURE



Recycling Broken Picks:

I have found a new use for those broken and bent picks that we have just lying around.

As you can see in *illustration 3*, I measure about 1" above the handle and break the remainder of the pick blade off. I can now use the modified pick to easily remove the clips from Sargent cylinders by inserting the tip of the old pick and pushing the clip out. This cuts down on the number of broken clips when working on Sargent plugs.

If you have a lot of clips to remove, I recommend wrapping a rag around the handle of the tool to prevent hurting the palm of your hand.

*Lowell Chalk
Florida*

KEEDEK "SPIN OUT" SCREWDRIVER WINNER:



Easy Edge Bore Enlargement

Every once in awhile I have to enlarge the edge bore (latch/bolt hole) on a wooden door to accommodate a new lockset. Enlarging these holes from 3/4" to 7/8" or 1" can sometimes present a challenge.

Rather than reach for a boring jig or inserting a small hole saw into a

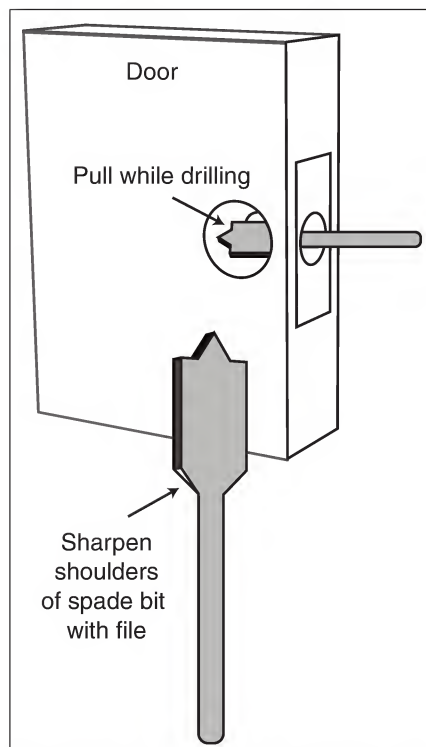


Illustration 4.

larger one, I use modified spade bits to do the job. I take a 7/8" or a 1" spade bit and sharpen the shoulders of the bit. (See *illustration 4*.)

As you can see in the illustration, I insert the shank of the spade bit into the edge bore through the cross bore and out through the latch side of the edge bore. Next I attach my drill motor to the shank of the spade bit.

While running the drill on low speed - to get it started - and making sure to hold the drill and bit in alignment, I slowly pull the spade bit backwards through the edge bore hole, increasing the speed slightly as the shoulders of the bit bite into the wood.

This is a fast, easy and neat way of enlarging these bores when necessary.

*Jon DiStafno
West Virginia*

TECH TRAIN TRAINING VIDEO WINNER: Opening the ABUS 78/50



In the April issue of *The National Locksmith*, Sal Dulcamaro suggested a drill point for the ABUS combination padlock. I think I have a little better drill point and a quicker way of opening this lock.

Look at the code number on the back of the lock. Using the second number in the code as a reference point, measure straight up 1/2". Center punch this mark and drill a 1/8" hole (carefully) through the back cover. Using a small scope, look into the hole and you will see that you are right on top of the opening position. Line up the gates, pull the shackle, and the padlock is open.

Each time you dial one of the wheels into position, you can look at the dial and record the number. This way, once the lock is open, and you have repaired the hole, you will have the combination.

*James A. Bradshaw
Canada*



SIEVEKING PRODUCTS GM E-Z WHEEL PULLER WINNER: No Wedge Contour Opening

I still hear a lot of locksmiths complain about the tight fit when

wedging the Ford Contour/Mystique for an opening. Many seem to feel they will break the glass when wedging it. Here's what I recommend.

Go to the car and remove the rubber weather stripping at the bottom of the glass. Yes, remove it. It's designed to come off. Once the weather stripping is removed you'll have more than enough room for tool insertion! There's no need for a wedge.

Insert your under-the-window tool and push the door handle outwards and your in. No force at all will have been used. Just remember to put the weather stripping back on. By sliding it into place, and pushing down. It's a fast and easy opening.

*Jonathan Muhammad
Georgia*



MAJOR MANUFACTURING PRODUCTS WINNER:

Opening A 'Dead' Kwikset Latch

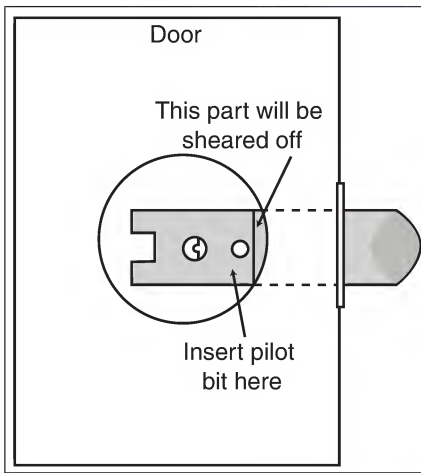
At one time or another, every locksmith encounters a Kwikset dead latch that dies and will not allow the door to be opened. In this 'dead latch' mode the Kwikset key-in-knob lock can't even be forced from the interior without doing damage to the door, frame or both.

Most often when a locksmith encounters this condition, they will take the inside knob off and proceed to destroy the latch mechanism by ripping out the 'guts' of the latch until they can reach in and pull the latch back with a pair of needle-nosed pliers or similar tool.

The problem with this approach is that you can break your pliers, twist screwdrivers out of shape, cut your fingers and frequently damage the door. My solution is simple, fast and ensures a scar free door.

Start by taking the inside knob off and exposing the locking boss (the half-moon shaped spindle that normally retracts the latch) will prevent you from pulling/pushing the outside knob off. Simply use the Kwikset Cylinder Tool to push the spring-loaded actuator back and push the knob out.

Now, you should be looking at the latch mechanism similar to that shown in *illustration 5*. Use a one-inch diameter hole saw and pilot bit. Insert

**Illustration 5.**

the bit in the retaining screw hole as shown in the illustration. Turn on your drill and shear the mechanism off as shown.

Now all you have to do is grip the tab of the latch with a pair of needle-nosed pliers (bent needle-nosed works best) and pull. The latch will retract, the door will open and you can sell the customer a new knobset.

*Paul A. Keen, Jr. CPL
Pennsylvania*



**SLIDELOCK'S "Z" TOOL
OPENING SET WINNER:
Clip Removal Tool**

Here's a tip for removing the "C" & "E" clips from lock plugs with a tool we all have readily available to us in our trucks or service kits... our pinning tweezers.

Spread the tweezers, put the end of the tweezers against the end of the clip and work them back and forth as you apply pushing pressure against the clip, pushing it off the plug.

I've been using tweezers for removing clips for over 15 years and find they work on all plugs, regardless of size, even the imported ones.

*Richard Hollingshead
Arizona*



**THE SIEVEKING AUTO
KEY GUIDE WINNER:
Ford 10-Cut Ignition
Repair.**

When you come across those Ford ignitions where the ears are loose and will turn when they're not supposed to, they're easy to fix without replacing the ignition.

First, remove the ignition from the column, remove the buzzer actuator from the housing, and remove the plug from the housing. Next, turn the ears of the ignition about a 1/4" from their normal alignment. Sometimes, even though the ears are loose, you may have to force the collar around.

Now, take a 1/8" or smaller drill bit and drill a hole into the area of the plug where the ears would normally be in alignment. Drill into the plug just next to the shoulder of the spun weld part of the ears.

Look for the "V" or groove and drill just deep enough for your drilled hole to have a good "shoulder" on it. On the plug and below the end of the collar, put a mark in line with where you drilled your hole. Repeat this procedure two or three more times around the plug, spacing your holes evenly being sure to mark on the plug where your drilled holes are located. After you've drilled your holes move the ears into their proper position. If you insert an uncut blank, it makes it easier to line the ears up.

With the ears in the proper position use an automatic center punch to punch an indentation on the spun weld part of the ears right over your drilled holes. Line your punch up with the marks you made on the plug. This will force material from the ears into the drilled holes in the plug.

My automatic center punch is a larger one (the body is about 1/2 inch in diameter) and I punch over my drilled holes at least eight times to make sure there is a sufficient indentation to keep the ears from spinning out of alignment again.

I find this repair to be effective and profitable as long as I charge accordingly for my time and knowledge.

*Steve Craigen
Texas*



**JET KEY BLANKS (100)
WINNER:
Jensen Letter Box
Repin**

If you should run across the Jensen "K" series letterbox lock and need to repin the cylinder, your A6015 Chrysler Pinning Kit will work fine as a substitute.

You might have to file .0003 off of each pin, but I have found that Chrysler #1, #2, and #3 pins are the

same lengths as the Jensen pins.

*Alex Cartwright
Illinois*



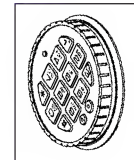
**HIGH TECH
TOOLS WINNER:**

Ryder Truck Opening:

A customer had locked the keys inside a Ryder rental truck and wanted me to retrieve them. The truck was an International semi-truck and after precariously holding on to the mirror while trying to use an opening tool, I decided to try picking the lock.

The lock was a double-sided wafer lock and it picked quite easily. The passenger door picks to the right. Picking these locks is much easier than trying to use an opening tool.

*Curtis Martin
Georgia*



**LAGARD WINNER:
Inner Safe Door
Opening**

I was called to open the inner door on a safe. Visual inspection showed me that the lock was a Medeco cam lock and my customer informed me that the armored car would be there in about five minutes to pick up the deposit locked in the inner compartment.

Knowing that there was no chance of picking the lock, I used my high-speed grinder to grind the face of the lock - and the collar - just about flush with the door of the safe. I had to be very careful not to scar the surface of the inner door.

Once I had the face and collar of the lock ground down nearly flush with the surface of the inner door, I was able to use a punch and hammer to drive the Medeco cam lock into the inner compartment of the safe.

Since the locking cam is at the rear of the key cylinder (and held on by a retaining screw), when I pushed the cylinder into the safe there was nothing locking the door and I simply pulled it open. The total time to open this particular inner door was three minutes.

*Bill Wessel
California*



Free Advice To Young Locksmiths

by Tony Blass



*Time is a great teacher.
Unfortunately it kills
all it's students.*

Ah yes, I remember when I first started working as a locksmith twenty-five years ago. I was fresh out of locksmithing school, full of lemonade and vinegar, and I decided to start my own business, without ever having worked for anyone else. I simply equipped a van and placed an ad in the local phone book. Since I had no backup or home base to rely on, this gave me the opportunity to learn a lot of things in the absolute hardest way possible. There was a lot to learn. But things learned in this way are not soon forgotten.

As a service to the industry, I have decided to share with inexperienced locksmiths this hard earned general knowledge that I have stumbled over during the last 25-years. I do this for two very important reasons. Firstly, I would like to save others from the pitfalls and suffering that I have had to endure. Second, because I have nothing else to do right now.

My first bit of advice to novice

locksmiths is: Make sure you have explored all other career possibilities. Be aware that there are promising opportunities out there in such cutting edge fields as poodle grooming, toxic waste removal, and bomb deactivation.

If, after all, you still have your heart set on locksmithing, then here are some general guidelines that I have offered to many of my apprentices:

Early in your career, since you will be lacking experience, you are going to run into jobs that you just won't be able to complete. In order to avoid looking unprofessional, you should have at all times at your disposal, a list of ten excuses to offer to the customer explaining why you were not able to complete the job.

Here are some examples of the excuses you could use to obscure the situation:

1. The freenpeg supporting the inner remelkrantz has gone kalfouie on your lock. Sorry, but we don't stock those parts because of my bosses' religious beliefs.
2. Corrosion has eaten away the main Hemelforth on this lock and the back-up suffers from a lazy-cam. It's sorta technical, but the bottom line is that we are going to have to replace this whole thing.
3. I can't fix this lock because the zipnoid factor has dipped below acceptable levels, and the new ozone rules require that we replace the lock altogether, or face immediate deportation.
4. Sorry you will have to get some one else to finish this job, I am a volunteer fireman and I just got a call that someone's head got stuck in a coke machine.

Here are some further guidelines for novice locksmiths:

- Never lose your temper with anyone while holding your rat tail impressioning file.
- Whenever the customer has a complaint, always blame the owner of the business for the problem; even when you are the owner of the business.
- When doing a house call, always ask the customer's permission before rummaging through their refrigerator for a beer or

sandwich ingredients.

- When ordering inventory, never be enticed by the volume deals that suppliers offer on items, such as giving you a price break if you buy over 100 Edsel glove box locks, unless you are looking for something to hand down to your grandchildren.
- Always remove your baseball cap with the beer cup holders on each side before going to a job.

If you are asked any of the following questions by your customers, the answer should always be no:

- Do you accept anything besides money for payment big boy?
- Can you bill my ex-husband for this job?
- Any question that begins with, "While you are here..." Such as, "While you are here, could you help me catch my stray rattlesnake?" (or stray skunk, tarantula, husband etc.)
- Will you take a third party check originating in Islamabad?
- Would you like to slip into something more comfortable until my husband gets home?
- Would you like to know why I am changing my locks?
- Would you like to make a fortune in Multi-level marketing?
- Would you mind pulling on my finger?

Never shoot through a yellow light unless you are sure the car in front of you has the same plans.

Clear up all the loose ends in your life before working on a steering column containing an airbag. Also, before working on airbags, try to sharpen your reflexes to the point where you are able to avoid a Phillips screwdriver coming towards your

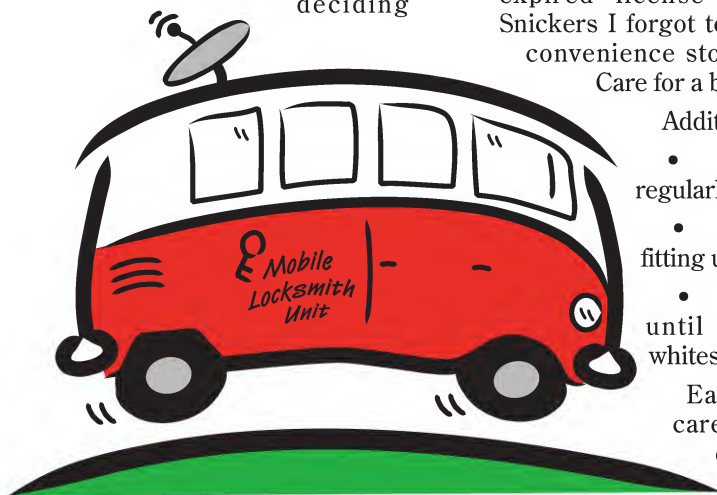


face at the rate of 2,000 mph. One way to practice this is by asking your wife the following question while she is holding a kitchen utensil, "Honey, did that dress you are wearing shrink in the wash?"

If you hear a loud scraping sound while coming to a stop in your van, start thinking about where you are going to get \$500.00 for a brake job or a louder radio.

Here is some advice for when you get pulled over by a policeman.

- While he is deciding



whether to give you a ticket or not, he will usually ask you this question: "Do you know why I pulled you over?" This is a trick question. The correct answer is: "Why no sir, I don't sir, officer, your highness, sir. And top of the morning to you, care for a doughnut?"

Here is the wrong answer to that same question:

- "Well let's see officer, you might have pulled me over for the two red lights I ran, my broken tail light, expired license tags, or the Snickers I forgot to pay for at the convenience store back there. Care for a beer?"

Additional advice:

- F l o s s regularly.
- Wear loose fitting underwear.
- Don't fire until you see the whites of their eyes.

Early in your career put a lot of effort into finding a mechanic that

can diagnose what's wrong with your van the FIRST time you bring it in. This way, you will not have to listen to statements such as, "Well, I guess replacing your transmission didn't take care of that noise that you brought your van in for, but you would have needed a new trans eventually anyway. And don't worry, I will find out what is wrong with this van if I have to replace every last part on it. By the way, what is the limit on your credit card?"

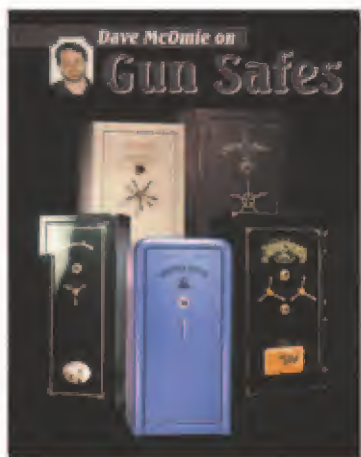
If you do find a mechanic that can fix the problem the FIRST time, then do the following three things.

- Call me and give me his number.
- Ask him to be godfather to your children, so that he develops an emotional tie to your community.
- If he moves to another area, follow him and relocate your family and business to that area.

Always carry a roll of duct tape in your van. This can come in handy in a number of common situations such as the following:

- Your customer is way too talkative while watching you work, and you need a way to muffle the sound.
- You have just finished stomping your malfunctioning cell phone into

Gun Safes

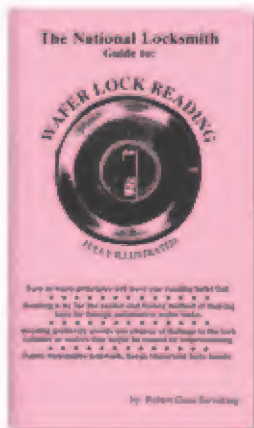


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#GS - 1

Wafer Lock Reading

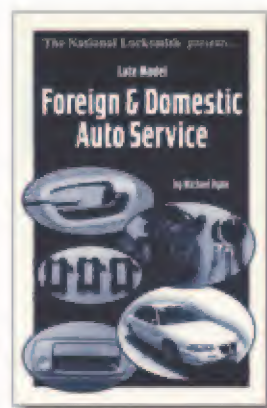


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#WLR - 1

Foreign & Domestic Auto Service



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#FDAS - 1

the pavement and you need something to strap the splint onto your broken leg.

- You find a dead whale on the beach and you want to bring it home to show the kids, but you need a way to attach it to the top of your van.

Never do anything strenuous after a large lunch, such as trying to change a flat tire on your van, without a jack.

Always practice safety first. As an example, never ask a female customer when the baby is due unless you are absolutely sure she is pregnant. This can put you at risk for serious bodily injury. It took me two painful mistakes to get that one down.

If, like myself, you are fortunate enough to reach the age of 50 years, always look in the mirror before you head out to work to check for the following:

- If, during the course of the previous evening, you finally broke down and applied a bottle of Lady Clairol's "LOSE THE GREY IN A DAY", then you should check your scalp for blistering. You may need immediate medical attention.
- If you stand straight up in front of a full length mirror, you will probably

notice a serious listing to the left. This is due to driving in a van with bad suspension and your right foot extended on the gas pedal for about 400,000 miles. If you have an X-ray taken of your spine at this point, it will look like an overhead view of a 27 car pile-up on the interstate.

There are things that you can do to compensate for this leeward tilting, and thereby avoid having your customers get sea-sick when they look at you. Always carry your heavy tool box in your right hand. This will straighten your body to the right, although it may cause your left foot to hang about two inches off the ground.

In my experience, if you take exactly 20 late notices from the car finance company, fold them once, and stuff them into your left shoe, then you will once again make ground contact with both feet.

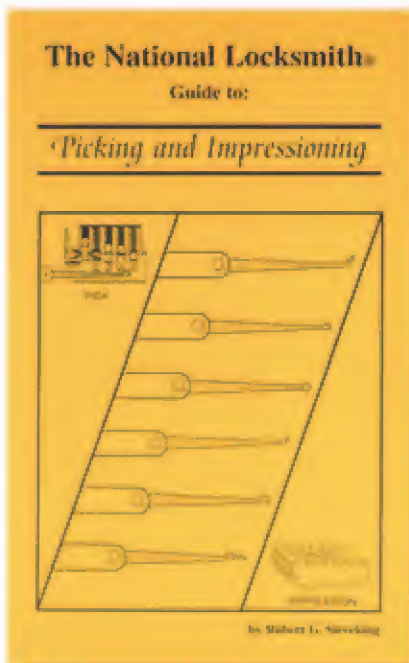
You will find at this point, that your memory may start slipping a bit, which will cause you to occasionally repeat yourself. Some people at this point also find that they are having a bit of trouble with their memory, which can lead to occasional repeating of oneself. Try not to do that.

My last bit of advice is to save for retirement. Surprisingly, if you save just \$5.00 a month starting when you are twenty-three, then you will have amassed a fortune by the time the Chicago Cubs win the World Series.

If you do, perchance, save some money, you must avoid phony investment plans, such as the classic Ponzi scheme. As an example, my brother-in-law, against my advice, gave \$50,000 to some guy named Chip, who promised him 200% return per year. When I asked my brother-in-law what this guy invested the money in, he responded, "Oh, he puts the money into unregurgitated corporate debt. And don't worry about safety, it is insured by the FDUD {Federal Department of Unregurgitated Debt}."

Needless to say, "Chip" now lives quite comfortably in Barbados, while my brother-in-law drives a Rambler and re-uses his dental floss.

Finally, with these words of wisdom firmly tucked in the dormant part of your brain, go forth young locksmiths, with your heads held high. Pursue your destiny, fight the forces of evil, while spreading peace, joy and home security through-out the land. **TNL**



Picking & Impressioning

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#PI

SELLING SECURITY

by Ted Tate

Sell the neighbors!

The Neighbor Alert Program. This was a program I inherited from the previous sales manager. While we sold lots of business with this one program, it was spotty when I took over. Some months zip! Other months we did very well.

I recall one sales person who sold two neighbors across the street from a new sale, then one on either side and finally the people whose back yard was against our first customer's back yard. Our installers were there so long that the people treated them like relatives!

After analyzing successes and failures, I concluded the program functioned extremely well only when sales people worked it as it was originally designed. When they tried short cuts or did it halfheartedly, it was only fair. From my original notes, here are my instructions to my sales staff fourteen years ago:

1. The use of this program is mandatory, not an option. Sales people who fail to turn in form listing a new customer's neighbors will be sent back to do so. No commissions can be paid until then, since the sale is incomplete. Finished means full names addresses and phone numbers. What the new customer can't tell you is listed in directories and it is the sales person's job to do so.


2. This applies to both business and residential.

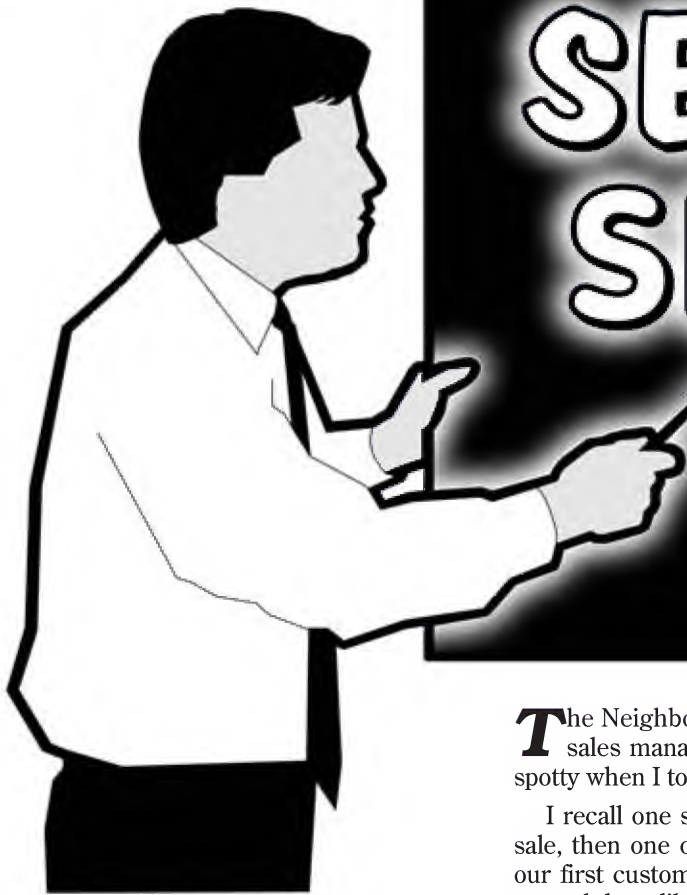
3. Sales people must use this script, IN PERSON, no phone calls: "Good Morning, my name is _____, I'm with XYZ Security. I was just at your neighbor's _____, and they had concerns about (problem(s) stated here, NO sales talk). They have selected us to install a security system to prevent (Problem (s) stated here again, NO sales talk). An outside siren will activate in event of a problem.

As responsible business people in the community, we make every effort to see it activates only as necessary. I want to give you our business card plus a card showing emergency phone numbers to post by your phone."

There's more, but space doesn't permit it all. You get the idea? Don't act like a sales person. You're a problem solver their neighbor does business with. The only time this program doesn't work is when sales people get lazy and look for short cuts instead of performing it this way.

Good luck and good selling!

Ted Tate was in the alarm industry nearly eighteen years. He now presents in-house business training programs and is a nationally known trainer and author. For additional free selling tips visit his web site: www.trainingexpert.com 



A MAJOR

NOTICE



1. (above) American Security TL-15 rated safe.



2. (right) The two stage boltwork that had broken into two pieces.

3. (below, right) The boltbar welded back together.

by Mike Griffin

I received a call from a local Hardee's that could not lock their safe. I knew the safe was unlocked and I also knew that I needed to go and check out what the problem was before the customer caused a lock out tampering with the safe.

Upon arrival to the site, I found an American Security TL-15 rated safe. (See photograph 1.) When I approached I noticed that the back panel had already been removed. The manager was trying to lift part of the two stage boltwork that had broken into two pieces. (See photograph 2.) At this point I disassembled the boltwork which was necessary to remove the remaining bolt stage. I gave the customer the option of repairing the existing boltwork, or replacing it with a new one (Amsec Part #171). He elected to have the existing boltwork repaired, so I took the two pieces back to the warehouse and proceeded to weld them back together. (See photograph 3.)

There are a couple of important things to notice about Amsec safes featuring a two stage boltwork system of this type:

1. It is not unusual in the older models of Amsec safes for this boltwork to crack in the location shown. When servicing this type of safe, the boltwork should be inspected for cracks or breaks. If found, it should be repaired. In the newer safe models the primary plate has been made thicker to prevent this problem.

2. The boltwork retaining washers used by Amsec (Part #P0051) are almost impossible to reinstall after removal. Due to this, many times you will find missing retainer washers that were left off by service technicians in the past. I would highly recommend that anybody that does safe servicing and repair, should order a few dozen of these washers to keep on hand. **TNL**





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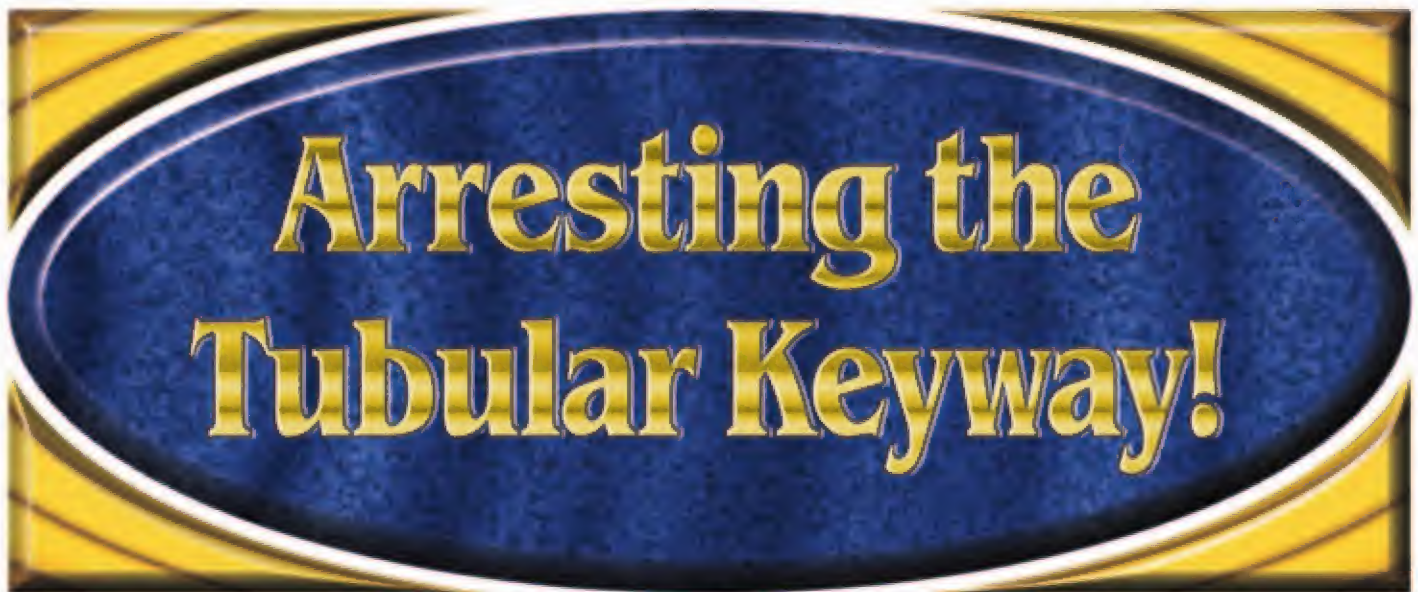
by
Don Dennis

It is a little bit rare and it is certainly welcomed, when a manufacturer/inventor becomes so dedicated to their product and cause that they expend enormous energy in striving towards perfection. This is the case with Ken Persson of Peterson Manufacturing. He developed his product, the Pro-1, and now spends every waking moment promoting and pursuing its perfection. (See *photograph 1.*) I have enjoyed this experience very much and for so many reasons. Let's start our adventure with the Pro-1 tool with a short explanation and then let Ken tell you about himself and the Pro-1.

I am sure there are others out there like myself. I love tools, but there is a fallacy to this entire tool habit. I have a big wooden box and inside are all of the disappointments. Yes, it was full of all sorts of things that looked great and might have worked but didn't. As I was preparing to write this article and knowing that the Pro-1 was invented to pick open and decode ACE style locks, I paid a visit to my big wooden box. I must have spent over two hours playing with all of the gizmos that didn't work. I even took the time to count the number of ACE picks in the collection. There were five.

Throughout my entire locksmithing career, I had wanted to add ACE locks as a specialty. Try as I would, I was unable to find a reliable pick. Without that the topic was dead. I

do not care what I tried or how I may have modified the picks, nothing was reliable. Nothing at all! I was unable to even have a picking average of 20%. So it was that the ACE lock job was dreaded, ignored, put off, and if at all possible, forgotten! So there beside the wooden box lay five ignored and almost forgotten tools. In my hand was the new Pro-1. This tool was supposedly capable of opening any ACE type lock. In fact it was supposed to open a 7-pin center, 7-pin left, 7-pin right, 8-pin, the smaller 0.360 barrel 7 and 6-pin, deep shrouded bicycle locks, and padlocks. One tool is to do all of that? Let's face it, my track record with ACE picks is not the best! Up until the Pro-1, I would have to buy several "picks" to even touch what this new tool claims! No matter how impressive the tool appeared, I had that track



1. This is the Peterson Pro-1 pick.



2. The cylinder of PVC has a specially built holder that is held into the tub by rivets. The holder fits the tool snugly while the cylinder cap houses the accessories.

record! Read on and you will find why I wish I was but twenty years younger.

An Interview with Ken Persson

Dennis: *Have you always been working as Peterson Manufacturing?*

Ken: Early in my life, I was an engineering type at Xerox. I used to be pretty good at solving complicated mechanical interaction problems. Now, I am a telecommunications engineer, working with fiber optics projects used for long haul circuits. Peterson is where my creativity goes wild.

Dennis: *Are you making this tool (Pro-1) at your company site or is it being outsourced?*

Ken: Eighty percent of the tool components are made in South Africa. The tool's final assembly and adjustment is performed at my location.

Dennis: Why South Africa?

Ken: During the final prototype development, I was working in South Africa. As such, my final prototypes and production tooling were manufactured there. We are very happy with our shop there and see no reason to change.

Dennis: *Since you are outsourcing, I would think that you have learned a great deal from the experience. What has been the most interesting part of the experience?*

Ken: Finding people you can trust and communicate with is always the most important part of any endeavor. But the most important part prior to that is figuring how to find any of the right people, and what they are called. "Mining information" is what this process is called, and it can be very challenging.

Dennis: *What part do you play in the tool's assembly at your location?*

Ken: We do all of the final assembly and adjustments and packaging. I personally "touch" each of the units several times during the process.

Dennis: *I like the fact that you have developed one tool for so many different applications. The key for this idea is in the tip development. How are the interchangeable tips made and of what composition?*

Ken: The KeyTips are poured from silicon bronze. We have made masters (which need to be sized for shrinkage), and then a mold is made so that the lost wax process can make the parts. Castings are then reformed. They are then turned on the lathe for accuracy and then de-burred. Parts are then "polished" in a vibrator polisher.

Dennis: *How did you come up with the idea for the Pro-1?*

Ken: My friend Leo Rick is a third generation locksmith. He showed me another ACE type pick perhaps 25 years ago. Leo was complaining that he had spent good money for it, but he could not get it to work. I started to ask him questions about what it should do, and he piqued my interest in exactly how ACE type locks worked.

Dennis: *How long have you been working on its development?*

Ken: I spent about 3-6 months looking at processes where I could cut key blanks to allow the feeding of a wire, and developed my approximate dial in approach, then I ran out of money. I went back to living life "normally" but would mentally work on the pick in bed before going to sleep. Finally, when I crushed my knee in a motorcycle accident, I had my wife bring me my laptop computer to the hospital. I detailed out the first prototype. Three years later and the rest is history.

Dennis: *What has been the most challenging part of inventing the Pro-1?*

Ken: There are too many to lists. For example even today there are experts in manufacturing by the lost wax process that adamantly argue that my KeyTips are absolutely impossible to cast. Showing them the finished product does not change their mind. With that said, the most difficult problem is to find the positive people (eagles) that can help you. At the same time, you need to avoid the ducks that will assure you that something will not work. Biggest problem, dealing with the ducks!

Dennis: *The carrying case for the Pro-1 is very substantial and cleverly made. How did that idea come about? (See photograph 2.)*

Ken: I hate tool cases that do not live up to the life of the tool. We have all purchased tools, which now have broken hinges on the case, latches missing, or the case has just plain disintegrated. Additionally, we were looking for a case that the locksmith could throw in their truck, or drop, without suffering a substantial loss.

Dennis: *I know that this tool (Pro-1) is just beginning to get off the ground when it comes to marketing and seeing a return on your investment. Is there, as of yet, another tool concept that you may be working on?*

Ken: I am continuing to look at all opportunities for my current tool. An

example would be to make a tip that would take care of the shield of Greenwald Box lock shields on washers and dryers. I am working on that now. I have also been looking at the car industry use of transponders. I have a couple of thoughts in other industry areas as well.

What's Included with the Pro-1 tool:

1. Video Instructional Tape
2. Instructional Manual
3. Complete Tool Kit
4. Pro-1 Hand Tool
5. Eighth Wire
6. Two tips (7 & 8 Wire Key Tip)
7. Allen Wrenches (for changing collar and tips)
8. Collar (if left off the standard tip you can then pick deep shrouded bike locks)
9. Decoder Gauge
10. A Registration Card, which once sent in, will give you an additional free tip (either the 0.360 diameter or the padlock tip). (See photograph 3.)

Picking the Lock

As with any tool there is a learning curve that must take place. If you can recall the time when you began to pick locks, there was a learning curve. This learning curve must be revisited. This time, however, you have experience already on your side.

When you pick a standard pin tumbler lock you know already that the secret is in the tension. Light tension as you begin to work each tumbler. You are working the tumbler with the greatest resistance. One by one you proceed. Then as the lock begins to surrender to your desires, the tension is increased ever so slightly. Then, success!

The Pro-1 is the exact same thing. Only this time you are dialing in each tumbler. You are "tapping" the wire tips to find the one that has the greatest resistance. That is the one that is binding at the sheer line. Slowly you turn the brass adjustment cap. Then there is an ever so slight give-and-click. That translates to success for that particular tumbler. This means one tumbler down and on to the next.

Start again by tapping the wire tips. Find the next tumbler that is offering the greatest resistance. Work that one down with the same dial-in technique. Finally the lock is open and you have seen success. I say finally, but in actuality, not



3. This photo shows the Allen wrenches, decoder bar and other available tips for the tool.



4. The standard tip has been installed and is being tightened by the Allen wrench through its center.

more than a couple of minutes have expired. When you receive your tool you will also receive a videotape of how to use the tool. It is very good and will also help you to shorten the learning curve that is needed. A lot of the technique is in the steady and moderate tension.

Once the lock has been picked, you will want to go through a step of fine tuning the results. As the pick starts to turn, turn it only far enough to allow the tumblers to come to rest out of their chambers and onto the lock flats between the chambers. Now you have a solid part of the lock to slowly dial the wires against the tumblers. The tumblers can go nowhere except to rest against the lock's sheer-line surface. Make certain that as you dial in the exact fit of the wire mating to the tumbler that you do not over turn the brass adjustment cap. Doing so will raise the entire tool away from the lock, resulting in a locked lock as soon as you turn the tool. Doing this properly will give you results that will allow you to go to a key machine and actually make an exact key.

The Tips

The tips are the most wonderful part of the tool other than it works as a tool should work. (See *photograph 4.*) In fact, Ken has done his best to create one tool that would fill all of the needs for the ACE lock concepts. Instead of having to put more money into one tool after another to meet the needs of lock variations, you buy one tool with adapters to fit the variations. For ACE locks this is new and it is good. By replacing the tip configuration, I have a "new" tool that will go from opening and decoding a standard 7-pin center ACE lock to a 7-pin American padlock.

The tip change over is very simple, almost elementary. Anything that is simple and works, in my book, is

beautiful. It truly takes no more than two minutes to change a tip and test the wires for movement. (See *photograph 5.*) I was a little concerned when Ken told me that the tips were made by the "lost wax process" but after seeing the results, I am no longer a doubting Thomas. The tips fit perfectly over the lock's center spindle and fit flat. This is very important to the picking process. The last thing you want is to have the tip of the tool wobbling all over the place. The fit is a terrific part of this tool's success.

My Conclusion

You can already tell from what has been said that I am very excited about the Pro-1. There are a lot of things that I could still tell you about the tool, but as always it would increase this article into a booklet. Yes, the Pro-1 is a very important addition to my toolbox. I believe that if this tool had been around twenty years ago, I would have never had a problem with working on ACE locks. I would have embraced the ACE lock concepts and security without the nagging fear of having to really do a lot of damage to a customer's property to meet the needs. For those of you that are tired of not being able to master the picking of the ACE style locks that are on the market, buy this tool! For those of you that would like to be able to pick a lock and decode the combination as



5. Here the tip is removed with the Allen wrenches in their perspective screws. The tip, which is anchored to the tool by the long Allen screw down its center, is seen with two notches on its outer rim.

fast or faster than you can drill the lock and replace it, buy this tool!

It is rare for me to become this excited at a new innovation. The older I become, the more I have the tendency to wait and be very critical. I have bought enough tools that didn't work. In all honesty, the first time that I used this tool, by following the instructions, the lock opened. I was so surprised that I dropped the tool! You would have thought that a bolt of electricity had hit me. I have a 95% opening rate so far! That is out of 40 locks of all sorts. This includes ACE Locks, generic ACE style locks, non-momentary switches, momentary switches, and American padlocks. Look at me! Dickering over a simple 5%, only 2 unopened locks! I went from a 20% rating to a 95% rating!

For more information contact Peterson Manufacturing at: (716) 385-3896 or circle 257 on Rapid Reply.



Have a Marketing Plan

by John Robert



My ideas are nothing that most people don't already know for themselves. They are just common sense and nothing more than that. Most folks do not even have a clue that they already instinctively know how to succeed.

The reason that most people don't actively think about success is that they have been taught from the time they were small that you go out, get a job, work hard, and everything will be O.K. This is a great work ethic and never to be taken lightly. Unfortunately, self-employment requires one more virtue. "A Plan!"

Most people have no idea that maybe they should have some type of plan before they jump into a new venture. It is written that Christ said in Luke 14:28 "For which of you, intending to build a tower, sitteth not down first, and counteth the cost, whether he have sufficient to finish it?" Even he knew that when man decides to start a big project, (this includes self-employment) that to continue to the end with success, he must not only plan, but also consider "Do I have what it takes to finish or face ruin."

One of the best things about self-employment is "freedom." In our businesses we have the freedom to experiment and consider what it's going to cost me. This is what marketing is all about. No boss is looking over your shoulder telling you "I didn't ask for your opinion and ideas; just do your job!" You actually get to try out new ideas and techniques to see if it brings you business.

This is how you discover what customers are wanting and needing. If it is not successful then move on to something different. Don't linger too long on something that doesn't work because a bad marketing project will cost you money. If your idea brings you money then run with it. To be successful you have to take marketing chances, however, they don't have to be expensive.

The main fear that plagues most about working for ourselves is not getting paid weekly. When we all got our first jobs we learned real fast that on Friday we got a paycheck. But what we didn't get was the knowledge of how to keep that job going everyday. Someone else did that for us. In

essence we became a dependant who hoped someone else was going to supply the work and all we have to do is show up and do it so we can get paid.

This is why it is so important that you market your business and not rely on people that say: "When we need a locksmith we'll call you!" You don't rely on the Yellow Pages. Oh No! I just blasphemed. You must rely on a daily plan to market to someone different. If you can't do it everyday then do it every other day or just once a week. But do it, and do it, and do it. When you get to that point that all your efforts seem to keep failing then market some more.

The main idea is push your business to a new height every week, month, or year. You want to know what real marketing is? Try this. Find a lockshop in your area and go to every business around that store, even if it's right next door and just give them a flyer and your business card. Let them know that if the locksmith next door is unavailable by all means to call you. Bold you think? It works.

Some will look at this and say, "I can't believe you suggested that!" My reply would be "If I don't market, I don't work, and if I don't work I don't eat." It's nothing personal, it's just business!

The idea behind marketing is "Stay ahead of the competition. Blaze a trail so to speak. You want your competition jumping out of their skins.

That's just my opinion, but I know what works for me.

Transponders



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#TS - 2001

by Nelson Rivera

Opening the Toyota Echo



1. The new Toyota Echo.

Well they've done it again: It seems as if every year the people at Toyota come out with a new vehicle or two. Virtually every time, these new cars instantly become big sellers. There is no doubt that somewhere, sometime really soon (if it has not happened already) you will get a call to unlock one of the new Toyota Echos. (*See photograph 1.*) While similar in size and appearance to the old Toyota Tercel, the lock mechanism on the Echo is totally different than its predecessor.

As most locksmiths are aware, Toyota is masterful at shielding their lock mechanisms. They can cover up their linkages unlike any other manufacturer. In several of their models, Toyota has gone to a cable lock mechanism, making it practically impossible to unlock. I stress "practically" since car opening companies always find a way around these apparently insurmountable obstacles.

In the Echo, Toyota uses a standard horizontal linkage. The problem is Toyota does a fine job of covering that linkage up. For this reason High Tech Tools provides three different methods to unlock this vehicle. If you are having trouble with one method, or if you are more experienced with certain methods or tools, you don't have to waste time fumbling around with a complicated task when an easier alternative is available.

Opening Method 1:

The first method uses the High Tech Tools Number 23 tool and targets the rear passenger door. The tool is inserted at the rear of the door, right where the rear quarter window molding begins. (*See photograph 2.*) Lower the tool into the



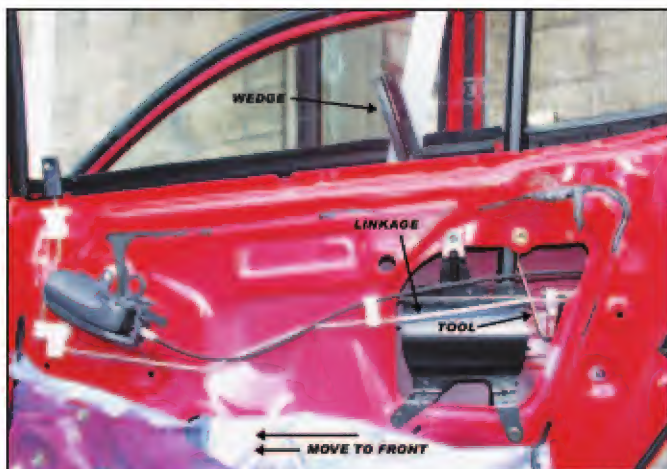
2. The tool is inserted at the rear door.



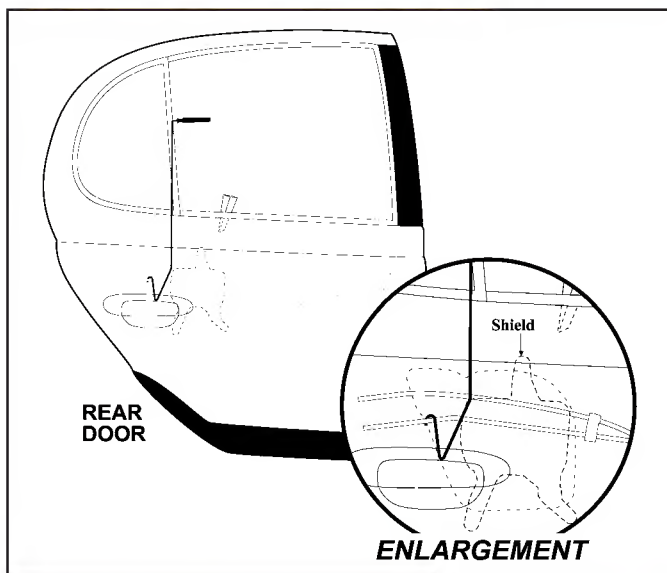
3. Lower the tool into the door.

door until the tool about half way down into the door. (See photograph 3.) In addition to the linkage running horizontally across the door, we can also see the shield protecting that linkage. (See photograph 4.) The tool must drop below the shield in order to reach the linkage. (See illustration A.)

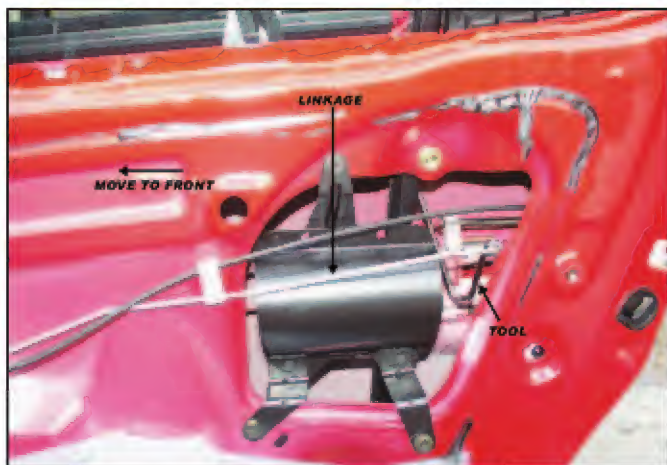
Once below the shield, turn the tool handle away from



4. The linkage is horizontal across the door.

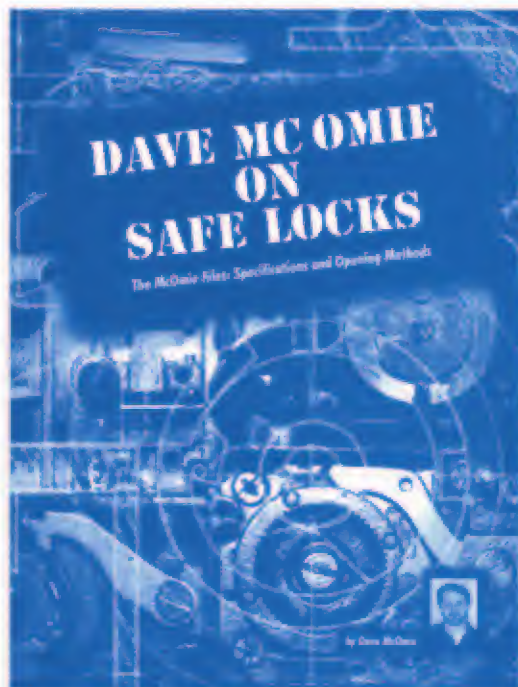


A. The tool must drop below the shield.



5. Turn the tool handle away from the vehicle.

Dave McOmie on Safe Locks



Almost 300 pages of information, photographs and illustrations give you every scrap of information about a huge variety of safe locks.

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#DMSL - 1

the vehicle so that the working end of the tool can access the linkage. (See *photograph 5*.) Next, lift the tool and turn the handle again to hook and bind the linkage. (See *photograph 6*.) Move the tool toward the front of the car to unlock the door.

As you can see in *photograph 4*, although the lock system is essentially a horizontal linkage system, the Echo has a vertical lock button for passenger use. The vertical and horizontal systems are connected by a bell crank, whose primary job is changing the direction of movement from front to rear, to up and down.

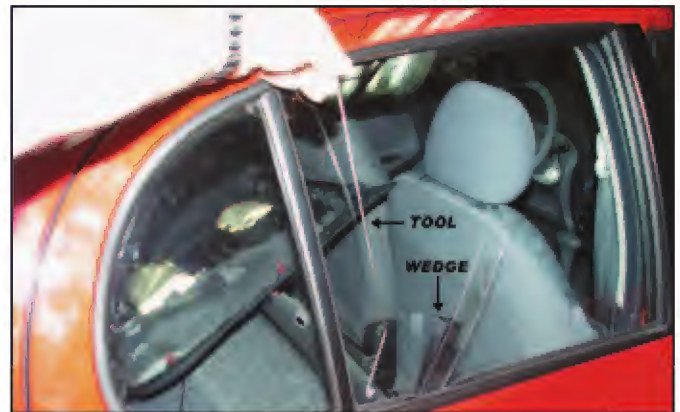
Opening Method 2:

The second opening method for the Toyota Echo uses the front door. Unlike the rear door, the linkage on the front door is wholly vertical and employs no bell crank. To unlock the Echo using this opening method, we will use the High Tech Tools Number 47 Tool, more commonly known as the 'S' tool.

Lower the tool into the front passenger door while twisting the tip of the tool around to come behind the door lock rod and hook it. (See *photograph 7*.) In *photograph 8*, we



6. Move linkage to the front of the vehicle.



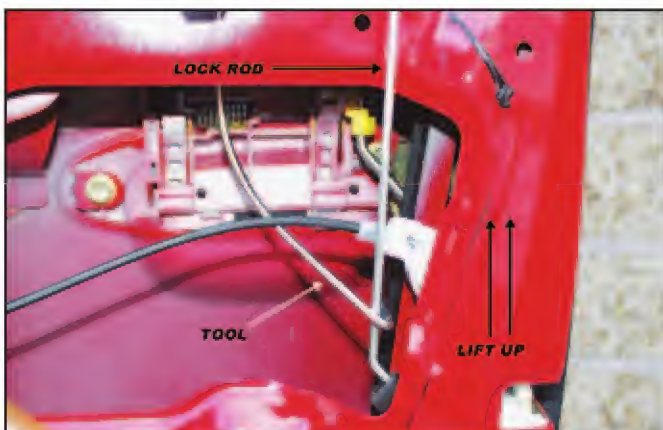
9. Lower the tool into the rear passenger door window.



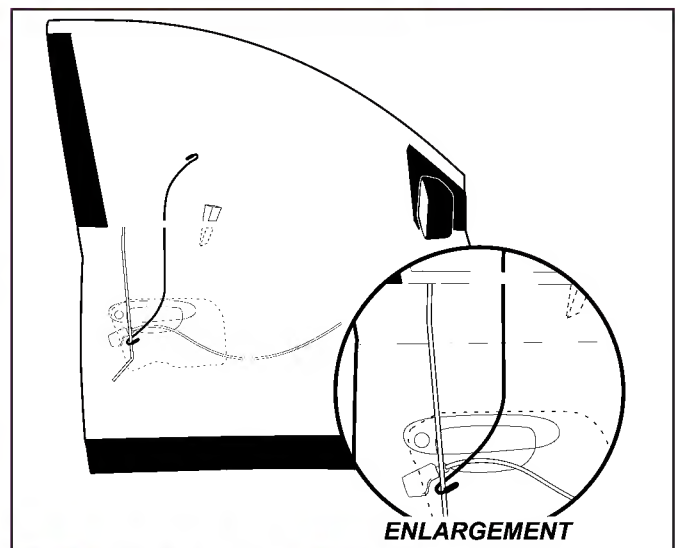
7. Lower the tool into the front passenger door.



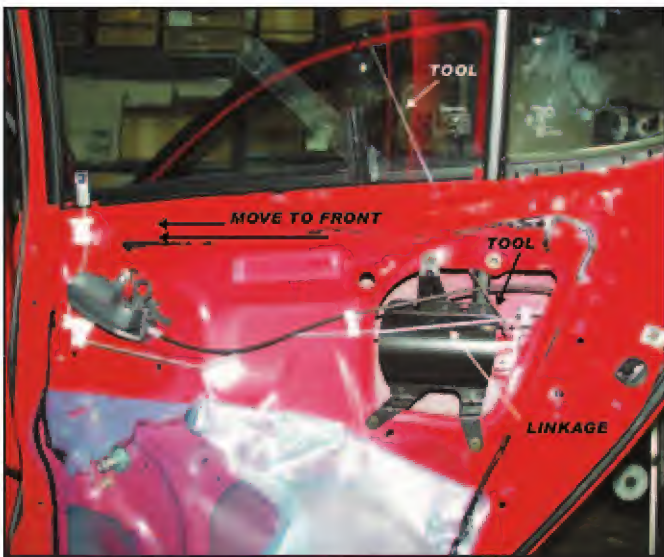
10. Lean the tool almost 45 degrees.



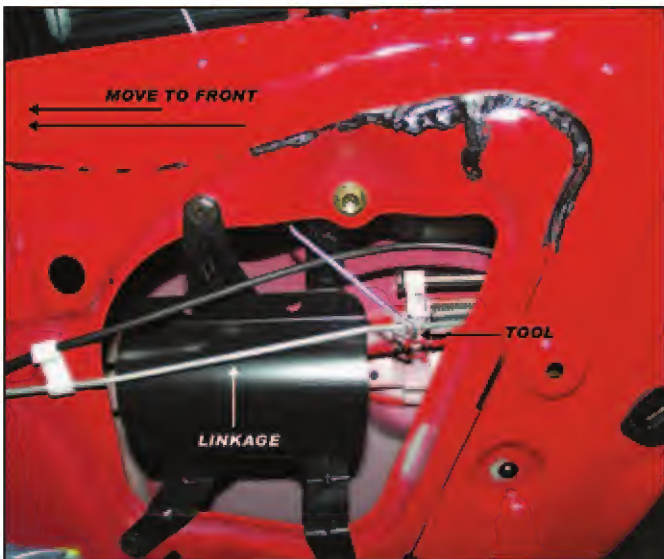
8. Tool hooks and binds the vertical linkage.



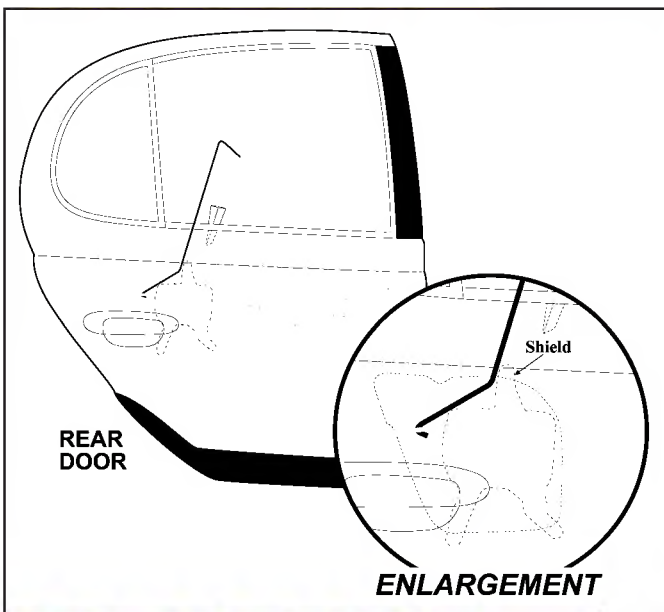
B. Lift the tool and the door is unlocked.



11. Shield protecting the linkage.



12. The tool must hook and bind the linkage.



C. The Reverse Hook Tool hooks the linkage in reverse.

can see how the working end of the 'S' tool hooks and binds the vertical linkage. Then, simply lift the tool and the door is unlocked. (See illustration B.)

Opening Method 3:

For the third and final opening method, we will be using High Tech Tools' Number 61, Reverse Hook Tool. Because the 61 tool is primarily used on horizontal linkages, we will be targeting the rear passenger door for this opening.

Just as in the first opening method, lower the tool into the rear passenger door window right at the rear quarter window partition. (See photograph 9.) Once lowered into the door, lean the tool over at almost a 45-degree angle, as shown in photograph 10.

Photograph 11, shows the opening in the door as well as the shield protecting the linkage. In photograph 12, we can see how the working end of the tool must hook and bind the linkage.

True to its name, the Reverse Hook Tool hooks the linkage in reverse order- from the top rather than from the bottom as we saw in Method 1. While most horizontal linkage bindings take place from bottom up, there may be some advantages to doing this in reverse, as in this opening method. (See illustration C.)

Next, move the tool forward to unlock the door. The diagram for this opening realistically demonstrates the correct position of the tool in the door.

For more information please contact High Tech Tools at 800-323-8324 or 1400 SW 1 street Miami, FL 33135, www.hightechnetools.com, or circle 321 on Rapid Reply. **TRI**

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#TIPS - 2





1999 Triumph

by john blankenship

Legend



1. (Left) Triumph motorcycles were very popular in the USA during the 1960's and 70's. They had financial problems and importing stopped in the early 80's. Triumph recovered and began selling motorcycles in the USA again in 1995. A new style lock was introduced on the USA models in 1997. The Legend uses this lock and is the least expensive of the eleven models sold here.

2. (Top of Page) The ignition lock is located between the handlebars and instrument panel. Although the more expensive models have locks on the gas cap and seat, the ignition lock is the only lock on this motorcycle.



The lock is shown in the "LOCK" position. Despite its off center appearance, it is not a sidebar lock. It is a unique type of wafer tumbler lock. **4.** Originating a Key — Impressioning: The best way to originate a key to this lock is to impression it. It marks the blank good and the wafers are strong. Make sure you do not push the plug in when impressioning. The plug will not turn when it is pushed in. Disassembly: The next best way to originate a key is to remove the lock and drill for the retainer so the plug can be removed for decoding. The retainer cannot be touched by a pick inside the keyway so disassembly is necessary. Reading: I was unable to read the wafers in this lock due to: 1. The lock being recessed between the handlebars and instrument panel. 2. The spring-loaded sliding dust cover is a slight problem. 3. Only a tiny portion of each wafer is visible in the keyway. 4. The wafers are the same color as the inside of the lock. Codes: There is no code on this lock and the codes are not available.

3. The lock is shown in the "OFF" position, which means the ignition is off, but the steering is not locked. A slight turn clockwise turns the ignition to "ON". To turn the lock 90-degrees counter-clockwise to the "LOCK" (steering locked) position, you need to turn the steering to the right or left, then push the plug in and allow it to spring back out before it will turn. The lock will not turn with the plug pushed in. You do not need to push the plug in prior to turning the lock from "LOCK" to "OFF". A slight turn past "LOCK" to the "PARK" position will turn on the lights so you can be seen while parked at night. The key can be removed in the "OFF", "LOCK", and "PARK" positions.



5. The blanks are only available at Triumph motorcycle dealers and one is shown on the right. It is Triumph part number 2500034-T0301 and the price is \$6.25. However, you can take an X80 Volvo blank that is shown on the left and modify it to work but it must be modified. Duplicate the original blank to an X80 by resting the lower land of both blanks on top of the jaw while keeping the thicker shoulder clear of the jaw. If you don't have an original blank, trim the tip on the X80 .920 from the shoulder. The best way to do this is to place two X80 blanks in the jaws with the lower lands resting on top of the jaws. Place the pattern blank in the jaws with the shoulder .230 from the shoulder stop. Then shoulder stop the other X80 and duplicate the tip to shorten it. Just make sure you don't duplicate the shoulder too. Then trim the width from .325 to .310 by taking .0075 off each side. The modified blank is shown in the middle. I duplicated the notches between the shoulder and bow but they are not necessary.

I impressed a key using a modified Curtis VL-6 blank because it is brass and I have a lot of them. It impressed well and worked the lock smoothly. I decoded it and code cut the key on the left. It worked the lock smoothly even though I did not cut the notches between the shoulder and bow. The spacing and depths are not available so I measured the original key that is shown in the middle to obtain them. There are six spaces and four depths.





7. If you need to disassemble the lock, begin by placing tape on the headlight and mounting bracket. Then place alignment marks on both pieces of tape so you can reinstall it to the same vertical alignment. Use a 13mm or 1/2" socket to remove the two acorn nuts that secure the headlight to the mounting brackets and let the headlight hang from its cables.

Use a 3mm or 9/64 hex wrench to remove the two bolts and beveled washers that secure the instrument panel. The hex wrench is in the left one and the right one is on the other side of the lock

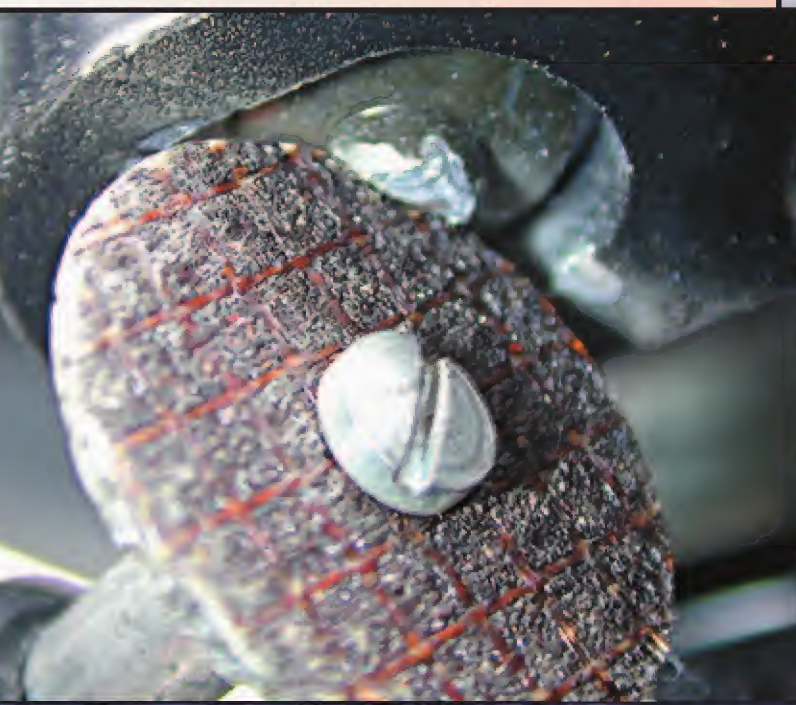
8.



9. Allow the instrument panel to hang by its cables along with the headlight.

You now have good access to the two shear head bolts that secure the ignition lock.

10.



11. Use a Dremel with a cutting wheel to cut screwdriver slots in the two shearhead bolts. After you replace the bolts you can use a hammer and punch to close the slots and maintain security.



12. Cut the slots deep enough for a screwdriver to get a good grip on the bolts. I used channel locks on the handle of the screwdriver to break the bolts loose and then they were easily removed along with their oblong washers.



Once the bolts are removed the lock can be pulled down and out but the cable on the ignition switch prevents the lock from being completely removed. You need to remove the two small shear head bolts that secure the switch to the lock.

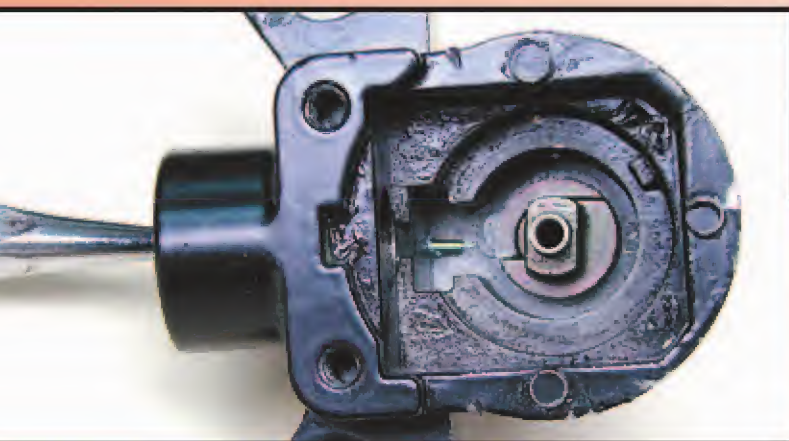
13.



14. Use a Dremel to cut screwdriver slots in the two small shear head bolts. A screwdriver easily removes the two bolts so the lock can be separated from the switch.

This shows where to drill a poke hole if the lock is in the "OFF" position. The hole should be aligned with the bottom/center of the plug, not with the keyway. To help determine the bottom of the plug, look for the word 'ZADI' stamped on the chrome facecap of the plug. The bottom is closest to the 'I' and the top is closest to the 'Z'. The retainer is 1-3/64" (26.6mm) from the face of the plug. As soon as you depress the retainer the plug will spring part way out of the cylinder due to the spring on the back of the plug.

15.



16. The punch inside the housing and almost to the retainer is shown. As you can see, the retainer is not close to the poke hole.

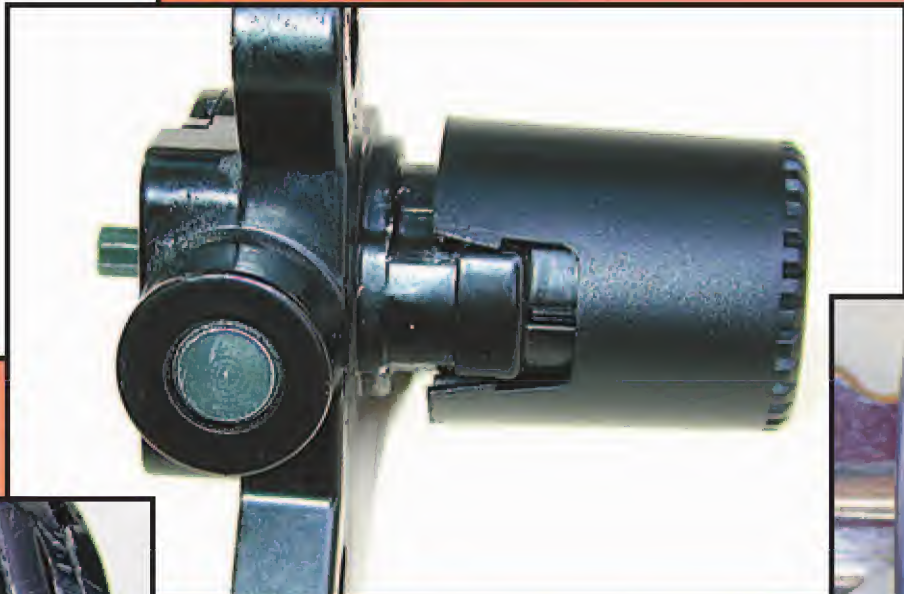


17.

If the lock is in the "LOCK" position it is best to remove the cylinder sleeve before drilling the poke hole. Use two screwdrivers to raise the locking portions of the sleeve as shown in the photo. Twist a third screwdriver between the end of the sleeve and housing to force the sleeve forward.

The sleeve can now be pulled off of the cylinder.

18.



19.

This photograph shows where to drill a poke hole if the lock is in the "LOCK" position. The hole should be aligned with the bottom/center of the plug, not with the keyway. The retainer is 1-3/64" (26.6mm) from the face of the plug. As soon as you depress the retainer the plug will spring part way out of the cylinder due to the spring on the back of the plug.



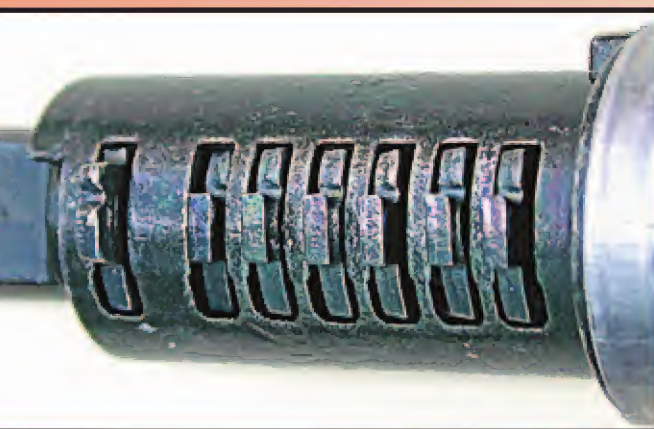
This photograph shows the punch inside the housing and touching the retainer. The retainer is close to the poke hole in this position.

20.



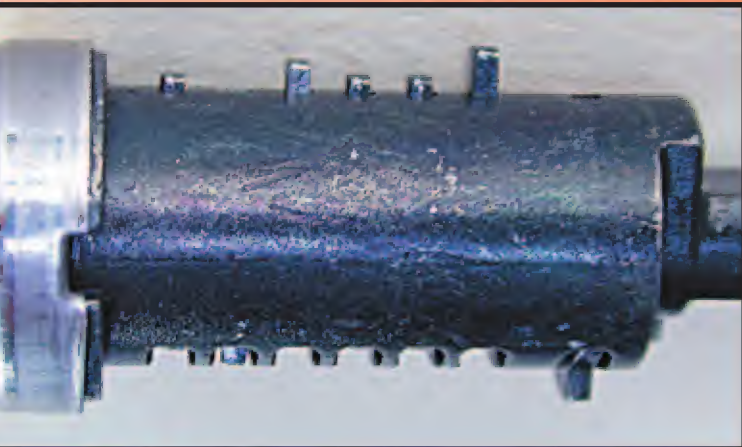
21.

The plug is shown removed and you are looking at the bottom. The spring on the back of the plug did not want to come out easily so I left it in. This lock has six wafer tumblers all on one side of the keyway plus the retainer. When reinstalling the plug in the cylinder, the retainer will contact the back of the locking groove and prevent the plug from being fully inserted. Therefore it is necessary to first use a screwdriver to turn the tailpiece to a position midway between "OFF" and "LOCK." Then insert the plug in the same position with the retainer aligned between the locking grooves. Use a pick to depress the retainer so it will enter the cylinder in this position. Then use a pick inside the keyway to retract the tumblers so the plug will slide in the rest of the way. Then turn the plug to "OFF" or "LOCK" so the key can be inserted. The plug can be inserted 180 degrees off, so be sure the retainer is on the lower right of the cylinder when installing. If you install it wrong you will have to drill another poke hole to remove it again.





22. A view of the top of the plug.



23. A blank inserted into the plug shows the cuts are 213224. Notice that the notches on the blank do not enter the keyway. They serve no purpose that I can determine.

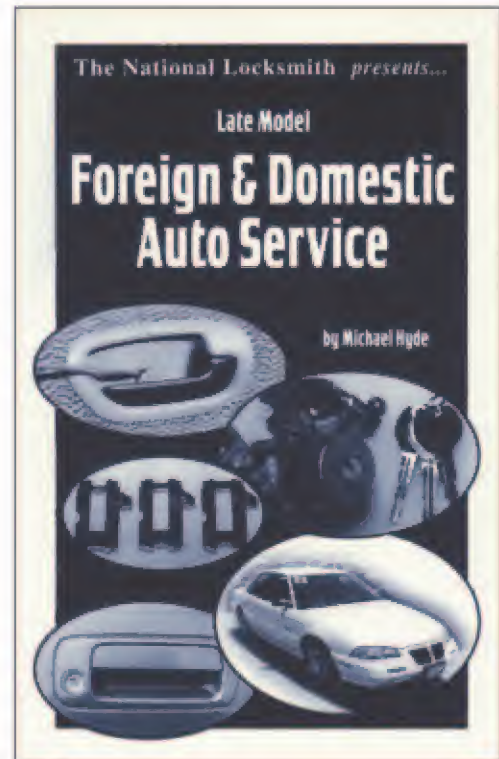


24. The wafers from right to left are depths 213224 and the retainer. We are looking at them as they are when we look at the face of the plug. I could not pull the wafers from the plug so I used a hammer and punch to force them out. It turned out that there is a tiny brass rod that runs up the center of the plug and through the holes in the center of the wafers to keep them from springing out. I sheared the rod into 15 pieces.



25. How the key contacts the wafers when inserted into the keyway.

Foreign & Domestic Auto Service




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

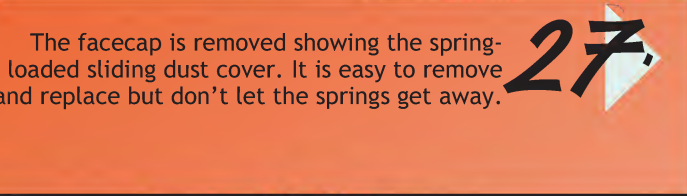
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#FDAS - 1

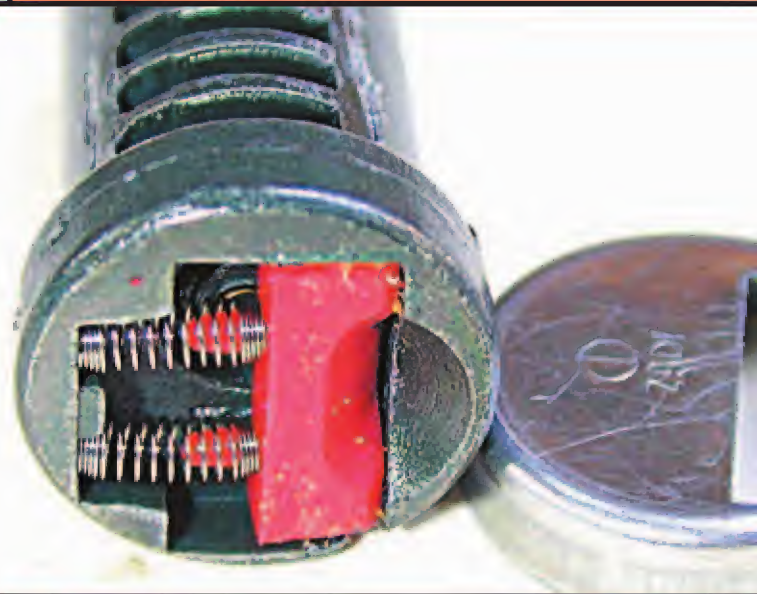


26. It is necessary to remove the facecap from the plug whenever rekeying or repairing damage to the tiny brass rod. Un-crimp the face cap by twisting a screwdriver in the two crimping slots.

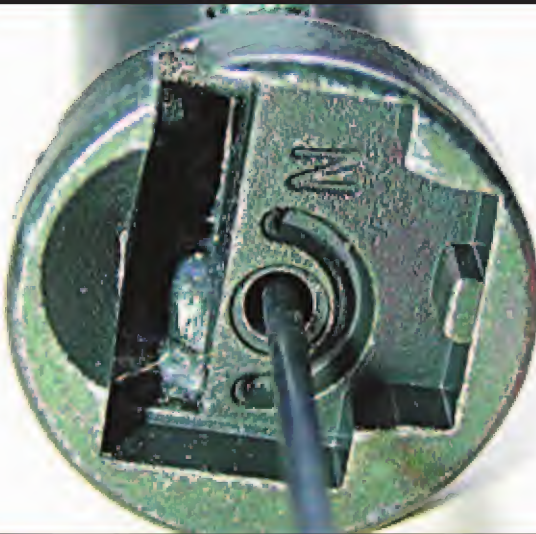


The facecap is removed showing the spring-loaded sliding dust cover. It is easy to remove and replace but don't let the springs get away.

27.

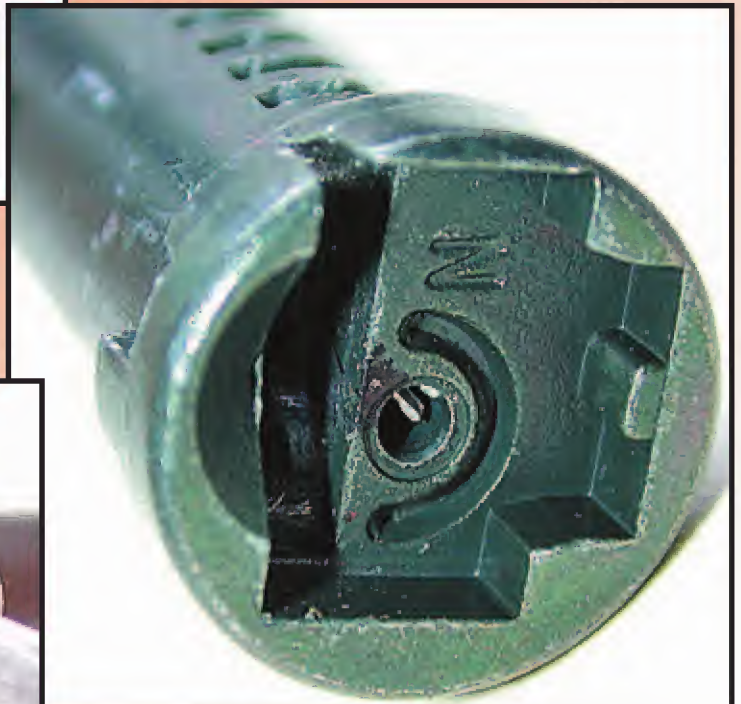


28. I replaced the tiny brass rod with a piece of .042 spring wire. I measured it, cut it off, and flattened one end with a hammer.



After loading the springs and wafers into the plug, I inserted the rod and tapped it in with a punch. The flattened end of the rod bit into the sides of the entrance hole and secured it.

29.



30. To disassemble the whole lock, begin by removing the backing plate. There are notches where you can insert a screwdriver and get it started. Then tap a knife blade in to spread it farther. Then insert a screwdriver so you can finish prying it off the three posts that secure it.

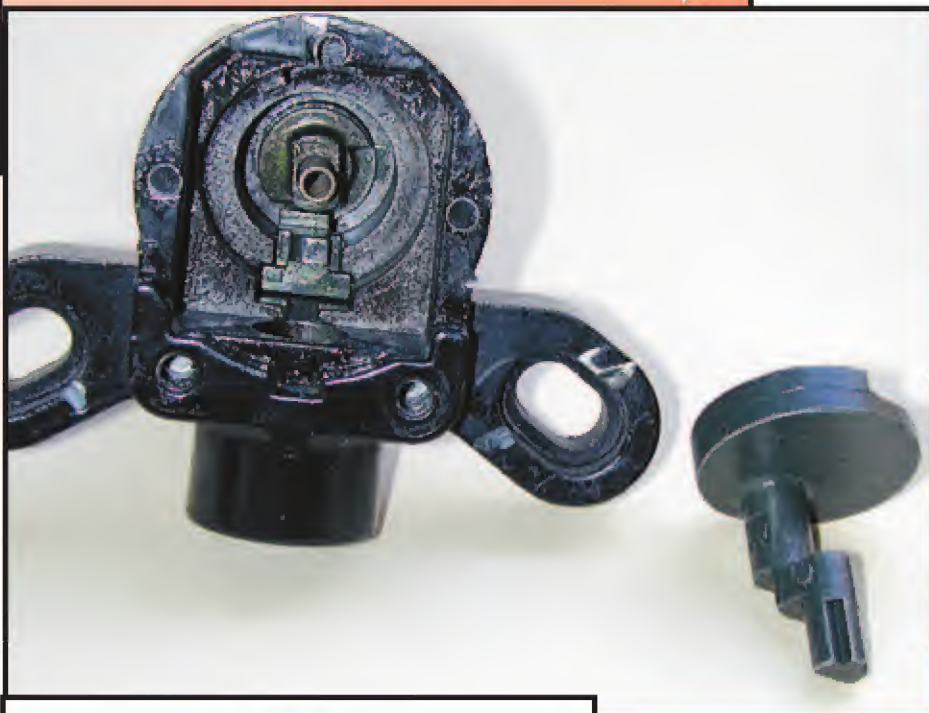


31. You have to use a key or pick the lock to align the tailpiece with the slot in the bolt actuator. Once it is aligned, pull the bolt actuator straight out.



The bolt actuator is removed. Push the bolt down and the tailpiece can be pulled out. Then pull the bolt up and you can remove it.

32.



33. The tailpiece and bolt are removed. You can now depress the retainer and push the plug out the front of the cylinder. The 'push to lock' block is the last piece remaining in the housing. Just pull it out being careful not to lose the spring under it.



The block is removed and disassembly is complete.

34.

Replace the block with the spring down. There is a ramp that will compress the spring just by sliding it in.

35. I put a small dab of JB Kwik Weld on each of the three posts, tapped the backing plate on, and then used a spring-loaded center punch to flare each post. I then clamped it in a vice for about 10 minutes. The lock is available at Triumph motorcycle dealers. **TNL**

Ignition/Steering Lock with Switch: Part Number T2500450 Price \$178.50

Codes: Unavailable

Blank: Original - Triumph Part Number 2500034-T0301 Price \$6.25

You can modify - Ilco X80 (VL6), Curtis VL-6, Silca NE40

I measured the spacing & depths and they worked for me.

Spacing:

1 = .140 , 2 = .250 , 3 = .360 , 4 = .470 ,
5 = .580 , 6 = .690

Depths:

1 = .310 , 2 = .281 , 3 = .252 , 4 = .223

KEY CODES

The HPC 1200CMB and 1200PCH code cards for this code series are between pages 70-73.

BMW Series

BMW BH010009-BH241009, Part 1

Manufacturer: BMW

Code Series: BH010009 - BH241009

Key Blanks:

Boerkey: 1458PS

CEA: BM2P

Errebi: HF48P8

Fuki: MT-4

Ilco: S7BW-P

Ilco EZ: S7BW-P

JMA: BM5P

Kraga: AP196

Lotus: HF155S

Orion: S7BWP

RR: XPHF116

R Clover: C-5

Silca: HU58AP

Number of Cuts: 12, six on either side.

M.A.C.S.: 2

Key Gauged: Shoulder

Center of First Cut: Side A: .183 Side B: .228

Cut to Cut Spacings: .128

Cut Depth Increments: .024

Notes: Requires a side cutting milling machine to produce key.

Spacings:

A Side

1 - .183

2 - .311

3 - .439

4 - .567

5 - .695

6 - .823

Depths:

1 = .276

2 = .252

3 = .228

4 = .205

HPC 1200CMB

Code Card: N/A

Jaw: N/A

Cutter: N/A

Gauge From:

B Side

.228

.356

.484

.612

.740

.868



HPC 1200PCH (Punch):

PCH Card: N/A

Punch: N/A

Jaw: N/A

Silca UnoCode

Card Number: N/A

HPC CodeMax

DSD #: N/A

Jaw: N/A

Cutter: N/A

Curtis No. 15 Code Cutter:

Cam-Set: N/A

Carriage: N/A

Framon #2:

Cuts Start at: N/A

Spacing: N/A

Block #: N/A

Depth Increments: N/A

Cutter: N/A

Key Clamping Info: N/A

A-1 Pack-A-Punch

Quick Change Kit: N/A

Punch: N/A

Die: N/A

ITL 9000 & 950

Manufacturer ID: N/A

BH010001 331131-442132
BH010002 212431-442232
BH010003 131131-334332
BH010004 442231-134332
BH010005 342131-121132
BH010006 123431-121332
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 BH010209 332131-134432
 BH010210 123131-424432

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BH010212	331131-234232	BH010277	442131-134432	BH010342	411331-343232	BH010407	411131-432132
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BH010247	311131-343332	BH010312	113231-443332	BH010377	213431-432432	BH010442	313231-413232
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BH010251	334231-412432	BH010316	411231-431132	BH010381	132431-411132	BH010446	242431-132332
BH010252	213231-433132	BH010317	313431-413232	BH010382	333131-424332	BH010447	443131-124232
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BH010258	343131-224432	BH010323	412431-221132	BH010388	124431-221332	BH010453	221131-243432
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BH010479	122131-234232	BH010544	342131-334232	BH010609	413431-321332	BH010674	133431-321232
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BH010778	342431-113332	BH010842	121131-134432	BH010906	331231-244432	BH010970	113431-413232
BH010779	121331-444432	BH010843	342431-411232	BH010907	243331-133432	BH010971	444231-133232
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BH010793	413231-411332	BH010857	322431-131132	BH010921	431131-444232	BH010985	334231-211332
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BMW Series

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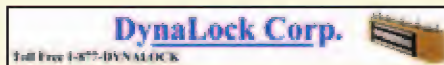
<http://www.adesco.com>

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HPC, Inc.



<http://www.hpcworld.com>

International Locking Devices, Ltd.



<http://www.gatelock.com>

KustomKey



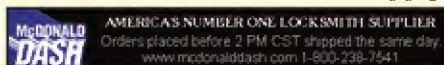
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McDonald DASH Locksmith Supply

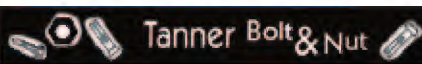


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WEB REVIEW

Tanner Bolt & Nut Corp.

<http://www.tannerbolt.com>



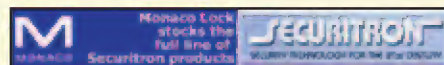
As most locksmiths know, one of the weakest links in the security chain can often be the unloved, overlooked screws and fasteners which hold the whole system together. Fortunately, there is a solution to this problem for installations that require an economical alternative to traditional, unsecured screws.

Tanner Bolt & Nut Corp. of Brooklyn, NY has long specialized in security screws and fasteners. In fact, they are quite familiar with the locksmith trade and on their web site, not only can you quickly view every security fastener known to man, but you can also view a catalog especially designed for locksmiths.

On top of that, you can even download the catalog for later reference. Of course, sometimes the problem you face may be the need to remove a security screw. That's where Tanner's tools can come in very handy. They carry the full Torx line, plus every other removal tool you could possibly want, and it's all easily viewed on their web site.

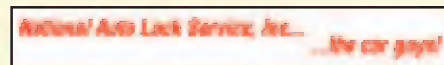


Monaco Lock



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National Auto Lock Service, Inc.



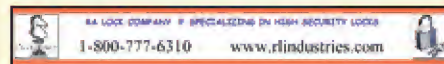
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Omaha Wholesale Hardware



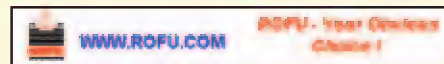
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RA Lock Co.



<http://www.rlindustries.com>

ROFU International Corp.



<http://www.rofu.com>

Security Resources, Inc.



<http://www.techtrainproductions.com>

ShatterGard Security Window Film



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TEST DRIVE!

Videx has introduced a very unique product that with a little creative thinking, can be used in a number of applications. In the age of user identification and authorization, Videx developed the TouchAccess, an intelligent lock that is easy to install on cabinets, file drawers and storage closets. The TouchAccess is basically a surface mounted rim lock without a key cylinder. Instead of using a traditional key to unlock the unit, a Dallas Semiconductor electronic button is placed against a reader to verify access. The Dallas Semiconductor electronic button also eliminates the ability to duplicate keys.

When an authorized user touches the lock with their key, their key ID is recorded in the lock with the current date and time. Any attempt to open the lock without an authorized key can trigger a local alarm, will be recorded on the audit trail and the lock will remain locked. The TouchAccess can also be programmed to require two, three or four keys for an authorized opening. This eliminates the ability of just one person being able to open the lock.

Time scheduling is also possible with the TouchAccess, in which various time zones are set for each individual user. This would allow that user to access the lock only during their scheduled time zone window. Attempts to access the lock outside the allotted time zone would be recorded and denied. Holidays and non-work days can also be easily blocked out.

With the use of a Palm III or

TouchAccess by Videx



Palm V handheld organizer and the Videx AuditLink software, through an infrared connection a comprehensive audit trail can be retrieved from the lock and stored for review. The audit trail gives such information as: the users name, the lock recorded, the date, time, events that occurred and the status or type of activity. The audit capability allows one to monitor access, pinpoint common use patterns and identify problems should they arise.

LOCK SPECIFICATIONS:

Physical: All metal construction:

Dimensions: 5" x 2.6" x 1.3" footprint.

Weight: 15 ounces

Indicators: LED, local alarm greater than 110db.

Capacity: Master Key, 524 access keys, 526 access events.

Clock: real-time clock.

Event Log: Key ID event type, date and time.

Access Modes: Up to four keys.

Keys: Dallas Semiconductor Touch Memory buttons.

Lock: Mechanical

Timed Access: Programmable access times and days.

Data Transfer: Infrared connection to Palm III or Palm V.

Battery Life: Up to 1 year or 10,000 openings with 9-volt alkaline battery. Up to 2 years or 20,000 openings with 9-volt lithium battery.

PRICE:

The TouchAccess is \$295.00.

The


AuditLink

software needed to perform an audit trail is \$190.00. The Dallas Semiconductor memory buttons are \$3.15 each.

CONCLUSION:

This is a very interesting product that can be used in a number of unique applications. It features a hook bolt design that interlocks with the strike receptacle. Because of its surface rim mounted design and hook bolt, it can be installed on just about anything. There is also a TouchAccess that can be used in conjunction with Multi-Lock file cabinet locking bars. This set-up allows access control and audit trail capabilities on file cabinets.

If you have a situation where key control, electronic security, time windows and audit trail capabilities is required, the TouchAccess may be just the thing.

For more information on the Videx TouchAccess call: (541) 758-0521; Fax: (541) 752-5285; Web: www.videx.com E-mail: sales@videx.com. Circle 317 on Rapid Reply. 

IN SUMMARY:

DESCRIPTION: TouchAccess is a surface mounted electronic access control lock.

PRICE: \$295.00

COMMENTS: Features a Dallas Semiconductor key button, time windows and audit capabilities.

TEST DRIVE RESULTS: Can be installed just about anywhere key control, time windows and an audit trail is needed.