I’ve been an automotive locksmith for over thirty-five years, and recently, I was asked to write about the changes that I’ve seen in lockout technology. When I stopped and thought about it a little, I quickly developed an appreciation for how easy I had it when I started. The first car that I unlocked for a customer was a Ford Pinto, which was almost new at the time. The training I was given to go do that job consisted of one minute or less on how to use a slim-jim. Today, sending a trainee out to unlock a new car armed only with a slim-jim would be a recipe for disaster. The locking systems have changed so much, just in the last ten years that I wouldn’t send out a trainee to unlock a new vehicle without a full days training at the very least.

Of course it’s not just the vehicles that have changed, but the tools as well. In my classes, I compare working in the field to going into battle. No one in their right mind would go into battle without first:

• Knowing as much as possible about their enemy
• Having as many weapons in their arsenal as possible
• Having as much personal protection as possible

The same is true in our business; it’s just the nature of the job that’s different:

• Before you tackle unlocking a new car, you need to know as much as possible about how that vehicle is built and how the locking system works.
• You need to have the proper tools at your disposal to do the job, and you can’t always count on one particular tool, so you need an arsenal of tools.
• Since we live in a society where people will sue each other over the slightest difficulty, you need to carry adequate liability insurance before you even answer the phone.
So why has the process of unlocking cars today changed so much in the last decade or so? The increased rate of change is being driven by a number of factors, but the two biggest factors are crash safety and cost reduction. In 1996, new side-impact and roll-over standards went into effect that permanently changed the way locking systems are used in the US. As a result of the new crash-safety standards, the old linkage rod systems that had been around for decades went out of style almost overnight, and so did a lot of the tools that were designed to work with them.

Today, manufacturers basically have a choice of three different styles of locking systems for the doors on new vehicles:

1. Vertical linkage rods. These systems use a vertical button and linkage that runs directly from the latch through the strongest parts of the door where they are protected from the effects of most side-impact collisions. These systems are the least expensive of the three options and are used by a wide variety of manufacturers.

2. Bicycle-style cables. This system allows the lock control components to be mounted further forward on the door than the vertical rod system. The cable system is much less likely to jam or cause a door to come open in a collision than traditional linkage rods. Cables generally cost more than linkage rods, but allow a lot of flexibility for the designers so many manufacturers have adopted them.

3. Electronic systems. Currently, these systems are being used mainly on high end vehicles. But, with the growing consumer demand for keyless vehicles, and the dropping prices of electronic systems, I expect to see them on many more vehicles in the near future.

For locksmiths, these changes mean that we have to adapt our techniques to the new systems. For tool manufacturers, the ability to introduce innovative new tools to deal with these changes means everything. Fortunately, there are a lot of very talented people working on the problem. Below are some of the new solutions for these problems along with some new adaptations of old solutions to the problem of vehicle entry.

Traditional car opening sets like the Tech-Train 2050 kit shown in the first photo are still a good way of dealing with a wide variety of older vehicles. And the book that comes with the set is an excellent source of information on almost any vehicle that you will encounter. I consider the Quick Entry Car Opening Manual that comes with the set to be the most important tool in the set.

But another great feature of this set is the wide array of specialty tools for some of the newer vehicles that are included. In the last few years, Lockmasters and Tech-Train have introduced numerous specialty tools designed to unlock some of the most difficult to unlock vehicles on the road today. Vehicles such as: The Nissan 350Z (TT-1033), the Dodge / Freightliner Sprinter (TT-1031) the Land Rover Discovery (with or without deadlocks - TT-1035) and the newer VW, Audi and Porsche vehicles that use an electronic locking mechanism in place of a mechanical system inside the door (TT-1036).
As an example, let’s look at the VW Touareg and the Porsche Cayenne that use the VW electronic door locking mechanism. This system is fast becoming standard equipment on new VW, Porsche and Audi vehicles.

Near the rear of the door is a small plastic fitting that many have mistaken for the top of a vertical button. In fact, it’s just a small red LED that indicates whether the alarm system is active on the vehicle. There is no mechanical system on this vehicle that the occupant can use to lock the vehicle. All locking functions are done electronically. To exit the vehicle, the occupant only has to pull the inside handle, which will override the lock and open the door as long as the alarm system has not been activated.

A little known fact about a lot of new VW, Porsche and Audi vehicles is that they are equipped with a small explosive device that will disconnect the battery in the event of a collision serious enough to deploy the airbags. If that happens, obviously the electronic lock / unlock mechanism will not work, which would trap the occupants if there were not a mechanical override. Therefore, the lock mechanism is equipped with a mechanical override that will unlock and then open the door. All the occupant has to do is to pull the inside handle twice to engage the mechanical override. The TT-1036 tool takes advantage of this override by allowing you to pull the inside handle out far enough to engage the override as shown. The TT-1036 provides a simple, safe, and effective way of dealing with this particular system.
In 1999, I introduced the Jiffy-Jak Vehicle Entry System specifically to deal with vehicles that were equipped with bicycle-style cables inside the door. At the time, I never dreamed that it would spawn so many similar tools from other manufacturers or that it would become the “Tool of Choice” of so many locksmiths. I always cringe when people tell me that they use the Jiffy-Jak to “unlock everything.” While it’s true that the Jiffy-Jak will theoretically unlock most vehicles, in so many cases there are better alternatives, such as specialty tools and some of the tools that are shown below.

Using the Jiffy-Jak for “everything” is just not smart – in fact, I think it’s just plain reckless. In addition, recklessness will get you into trouble in our business just as fast as it will on the battlefield. Some good examples of this are recent Honda and Acura vehicles such as the new Honda Civic.

Most of those vehicles are equipped with bicycle-style cables inside the doors, but they also have easily cracked plastic trim around the door frame. I’ve seen and heard of way too much damage being done to Honda vehicles by people using the Jiffy-Jak or one of the copy-cat tools, when an under window tool like the TT-1026 would have done the job quicker, easier and without damage.
It’s also true that you will meet customers who will not allow you to use the Jiffy-Jak because they are afraid of damage to their vehicle. In reality, they have noting to fear if the tool is used as it was designed to be used. But, trying to explain that to some people is more trouble than it’s worth. You will just have to be ready to pull another weapon from your arsenal in order to do the job. Despite that, the Jiffy-Jak is still one of my favorite tools for deadlocked BMWs, Lexus, Toyota, and Scion as well as many other vehicles.

A good example of that is almost any new Toyota, Lexus or Scion product. These vehicles are almost all equipped with bicycle-style cables inside the door, and are often equipped with a re-locking device that will re-lock the door as quickly as you can unlock it. The Jiffy-Jak gives the locksmith an easy, safe and effective way of dealing with those systems.

As an example, let’s look at a late model Toyota Camry, which is essentially the same as the Lexus ES300. These vehicles have been equipped with bicycle-style cables inside the door since 2002, and most of them have a re-locker as well. When the new cable system was introduced, another important change was made that many are unaware of; the inside door handles on the front doors now override the lock mechanism. This allows the front seat occupants to exit the vehicle quickly in an emergency, but it also gives us a dandy way to bypass the re-lock.

If you use the Jiffy-Jak to pull the inside handle out, you can override the door lock. If the vehicle is equipped with the factory alarm system, the alarm will go off and the re-locker will attempt to relock the door. But, if you hold the handle out far enough, the re-locker will simply not be able to re-lock the door. It’s sort of the reverse of trying to unlock your car door from the inside while someone on the outside is holding the handle up – the linkage just cannot engage. If you reach down with your free hand, while the alarm is sounding and the re-locker is unable to engage, you can pull the outside handle to open the door without having to pull the inside handle any further.

On alarm-equipped Toyota and Lexus products made before the new cable system was introduced, pulling the inside handle will not override the lock mechanism. But, the Jiffy-Jak can still be used to disable the re-locker. If you attack the vehicle from the driver’s side, you can use the Jiffy-Jak to open the hood and disconnect the battery, which will disable the re-locker. The hood release on almost all Toyota, Lexus and Scion products is a small paddle located on the lower portion of the dash. When you disconnect the battery, you only need to disconnect the negative terminal. (Whenever you disconnect a battery, always disconnect the negative terminal first. This will prevent a short circuit if your wrench should accidently make contact with any part of the frame of the car. The sparks created by a short circuit near a battery can cause the battery to explode.)
Another consequence of cables replacing linkage rods inside the doors was that picking the locks suddenly became a much more effective method for unlocking vehicles. Manufacturers are now demanding reduced weight and reduced costs for virtually every component that goes into a vehicle including the lock systems. Couple that with an increasing tendency to rely on electronic security in place of mechanical security and the result has been cheaper door locks that are much easier to pick than on older vehicles. To take advantage of these new weaknesses a variety of picking tools have been introduced, many of which require little or no skill. The Marshal Keys are capable of unlocking well over 50% of all GM, Ford and Chrysler vehicles made in the last five to ten years.

The Marshal keys are a type of pick known as “Pick Keys.” Unfortunately, pick keys have gotten a bad reputation because of scammers who have made a career out of selling bogus pick keys that simply do not work. Beware of anyone selling pick keys or “Master Keys” over the phone, especially if they can’t or won’t send you any literature. But, just because some scammers are selling worthless junk, it doesn’t make pick keys a bad investment. Just make sure that you can trust the people you buy from. As a general rule, if it sounds too good to be true, it probably is. In addition, no pick tool is ever going to pick 100% of any given type of lock.

The other side of the coin is the fact that a growing number of new vehicles are using High-Security locks. At one time these locks were thought to be virtually pick-proof, but as these locks became more common, locksmiths found new ways of picking them. There are now tools on the market such as Lockmaster’s “High-Security Flip Pick,” which allow a locksmith to pick them easily. With a little practice, this tool makes the job of unlocking deadlocked BMWs, Mercedes 2-track vehicles, most VW, Porsche and Audi vehicles as well as the Volvo big rigs simple.

One tool that I particularly like is the VWEZ pick from Lockmasters. I have had great luck with this simple tool and have quickly picked open every single VW, Porsche or Audi vehicle that I have attacked – and I’ve used it on a LOT of vehicles.
And finally, never under-estimate the value of being able to make a key to the door from outside the vehicle as a way of unlocking the door. Not only is this method guaranteed not to damage anything, it will also impress the heck out of your customers! With the Kobra Readers, you can quickly generate a working door key for most GM, Ford, Chrysler and Mitsubishi vehicles that you will encounter, without having to take anything apart.

The Determinators are also a great way of generating a working door key for a wide variety of vehicles. And once again, you do not have to take anything apart to make the key. Making a key to the door just to unlock it may seem like overkill, but remember – the customer called a locksmith, not a mechanic to unlock the door. And as a locksmith you should have the weapons in your arsenal that will allow you to make that key quickly and easily.

New vehicles won’t stop changing, so we have to change with the times – and so do our tools. But, there is one tool that will always give you the best return on your investment, and that’s knowledge. I strongly encourage you to read, study, and attend seminars as much as you can. Knowing what you’re up against is more than half the battle.