Getting a Feel for Car Opening
By Steve Young

I’ve been in the car opening business for so long that sometimes I lose touch with what it’s like to be a beginner, or someone who only does it occasionally. Recently a friend of mine had a problem on a job and we got to talking about general procedures and this article is the result of that conversation.

How do I decide where to insert the tool?
When I’m researching a new vehicle, one of the first things I do is slide a thin plastic card between the window glass and the weatherstripping. I’ll work the card up and down and slide it along the length of the weatherstrip to find out how tight the weatherstripping fits, and if there are any obstructions that will give me trouble.

Using this technique, I have made some surprising discoveries. On most vehicles that have a small, non-opening window on the rear door, the base of that window is sealed so that you cannot insert a tool. But on some vehicles, there is not only an opening but the linkage is readily attacked from that position. Two good examples of this are the Jeep Liberty and the Jeep commander.
A similar discovery also helped me with a Cadillac STS that had a disconnect-ed outside door handle linkage rod on the rear door. The child-safety switch was engaged on this car, so the inside handle would not operate. By using the plastic card, I discovered that I could insert a tool under the small window at the rear of the door and attack the latch directly in order to open the door.

Using the plastic card technique also helped me locate the opening on the rear door of the Toyota Camry where an under-window tool can be inserted. On that vehicle, there is a metal strip that runs along the base of the window glass on both the front and rear doors that will prevent the insertion of a tool. Fortunately, there is a gap in that strip at the forward edge of the rear door. The gap is just large enough to insert an under-window tool and then the tool can be angled sharply to hit the inside lock control rocker.

How do I locate the linkage inside the door?

Those who know me know that I am a big fan of inspection lights. I use an inspection light to illuminate the inside of the door so that I can locate the linkage visually. But I also know that there are many times that you simply cannot use an inspection light. After all, I live in a beach town with "sugar-white sand," and attempting to look inside a door under the blazing sun with white sand all around is simply a waste of time. Your eyes just cannot adjust far enough to let you see into the door under those conditions. That having been said, there are still lots of times that an inspection light can be worth its weight in gold to help you locate the linkage – especially at night.

If I cannot use an inspection light, I will try to locate the linkage by feel. It helps a lot to have a good manual that shows you where the linkages are, but you will still have to probe a little to actually make contact with your tool. As I probe for the linkage, I try to visualize what I think is inside the door. I also watch the inside lock control carefully for movement as I probe. If the lock button or rocker moves, then I know that I have at least touched the linkage. In the old days when a slim-jim would unlock almost everything, I used to hold my finger on the face of the lock cylinder as I probed for the lazy cam. I could feel it at once when the tool made contact with the lock or the linkage. Even though the slim-jim is fading rapidly into history, that technique still works if you are probing on a door that has a lock cylinder. Chances are that you won’t feel much since you are usually probing for a linkage rod that is not directly connected to the lock, but occasionally you will still feel something when you make contact with the linkage.

What about Cables?

One of the biggest problems today is the use of bicycle-style cables inside the door in place of linkage rods, such as on the Nissan 350Z. On these vehicles, there are no linkages that can be attacked. Using an inspection light can be a big help in identifying vehicles that have cables instead of linkage rods. But once again, the use of a quality, up to date, opening manual can be a big help.
Cables have become so commonplace that it’s good to keep in mind some general trends. Below is a short list of manufacturers who have made bicycle-style cables standard equipment.

- Jaguar – 2000 and up
- Mitsubishi – 2000 and up
- Nissan – 2003 and up
- Subaru – 2004 and up
- Toyota / Lexus / Scion – 2000 and up
- VW / Audi – 2000 and up

There are exceptions to this list, such as the new Mitsubishi Raider, which is actually a Dodge Dakota, and the Scion xB, which has a vertical linkage, but as a general rule, most of the vehicles on the list will have cables.

One nice thing about cable systems is that many of them now include a lock override on the front doors. On these vehicles, pulling the inside handle with an under-window tool or a long-reach tool will override the locks and unlock the door. This feature is included as a safety feature to allow adults to exit the car quickly in an emergency. Since children are no longer supposed to be in the front seat due to airbags, the front seat no longer has to be child-proof. Some examples of this are Jaguar, VW / Audi, Toyota / Lexus / Scion, and Ford. Ford has had this feature for years and now that they have begun phasing in cables on some vehicles like the Escape and the Focus, this can be a big help in unlocking these vehicles.

The Toyota / Lexus / Scion system is particularly nice. Because the inside handle now overrides the lock mechanism it also overrides the relocking alarm system. If you hold the inside handle out far enough the alarm system simply cannot relock the door.

**What if I get the tool stuck?**

The most important thing in freeing a stuck tool is to remain calm. Pulling hard or twisting the tool excessively will usually make things worse. Once I realize that my tool is stuck, I will immediately stop what I’m doing and try to visualize what may be going on inside the door. I have found that in many cases pulling the outside door handle will free the tool. It is all too easy get the tool wedged between the outside handle linkage and some nearby structure. Pulling the outside handle will change the position of the outside handle linkage and the latch bellcrank, and this is often all you need to do in order to free your tool.

If pulling the handle doesn’t do the trick, try changing the angle of the tool inside the door. Either raise or lower the handle while gently pulling or pushing on the tool and you will often be rewarded by having your tool slide free of whatever it was caught on. Once again, the most important thing is to be gentle and not to panic. If that doesn’t work, then it’s time to gently apply pressure to the tool in various directions. I’ll try different approaches such as pushing down, pulling up, twisting, and combinations of all of these.

If the tool simply will not come free, don’t force it. Get another tool and unlock the vehicle through a different door. Once you have the vehicle open, try freeing your tool again, but this time try moving the inside door handle and lock control. If all else fails you can take the door panel off and free the tool manually.
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When using an under-window tool, you need to keep in mind that there are some cars out there that will simply eat your tool if you try to unlock them with an under-window tool. The best example of this that I know of is the Kia Amanti. On the Amanti, the window regulator mechanism is offset from the base of the window slightly. If you try to use an under-window tool it will come up between the glass and the window regulator. As you raise the tool, it will get tighter and tighter until the tool either becomes hopelessly stuck or the glass breaks. That is why I strongly recommend using nothing but a long reach tool on the Amanti, which also has bicycle-style cables inside the door. Some other vehicles that have a reputation for eating under-window tools are the older Camaro and Firebird, GM pick-up trucks and the Toyota Tercel among others.

While we’re on the subject of under-window tools, a basic mistake that rookies make is to leave the wedges in the door as they pull the tool up inside the vehicle. This puts unwanted stress on the glass and actually makes it harder to insert the tool. As soon as you are sure that the top of the tool has started past the inner weatherstrip, stop and remove the wedges. Failure to remove the wedges will sooner or later result in a broken window.

Other assorted tips and tricks

When using an inspection light, there are two major problems – dirty glass and reflections. You cannot entirely eliminate either, but you can take steps to minimize them. To help reduce reflection on the glass that is inside the door, I put a curve in the shaft of the light so that the bulb goes to the far side of the glass. That way most of the light that reaches my eyes is passing through the glass rather than bouncing off the glass. For dirty glass, it is possible to run a cloth inside the door to clean off the outside surface of the glass. I usually use my plastic card with the cloth wrapped around it to clean the glass, but I have also used a slim-jim in place of the card. The inner surface of the glass is much harder to clean, but it is usually less dirty than the outer surface. In an extreme case, like on a farm truck or off-road vehicle, you can put a sharp bend a piece of wire and guide a wet cloth against the back surface of the glass, but the results are not usually worth the effort.

After-market tinting film and under-window tools simply do not mix. If I arrive on the scene and the car obviously has after-market tinting film, I will go out of my way not to use an under-window tool. Most of the time you can use a long-reach tool and accomplish the same thing without risking a scratch on the tinting film. If I absolutely have to use an under-window tool, I will only do it after informing the customer of the risk and getting a signed statement that the customer is aware of the risk and accepts the liability for any scratches. Then, I will use dishwashing liquid or liquid hand soap as a lubricant on the top portion of my tool to minimize the possibility of scratching the tint film. The advantage of using liquid soap as a lubricant is that it is very easy to clean up and won’t harm the weatherstripping or the upholstery.

Helpful customers can really be a pain. No one works at their best with someone looking over their shoulder, especially if that person is constantly distracting you with worries about their car. I have found two very simple techniques for getting helpful customers out of my hair. One way is to give them a flashlight (even if it’s daylight) and have them hold it on the lock button or rocker from the other side of the car so that you can “see it better.” It doesn’t matter if you don’t need to see the rocker, but it will get the customer off your neck. A much better solution is to give the customer a piece of paper to fill out while you’re working on the car. Ideally they should have to go into their wallet or purse in order to fill out the form, so ask for stuff like driver’s license numbers or insurance policy numbers, or if you are working for a roadside service company like AAA, ask for the contract number. The whole idea here is to keep the customer out of your hair, but it also makes you look more professional. If for some reason you wind up in court with the customer, understand that in most states a form of this nature is not a lot of good to you if you damage or break something. That’s what insurance if for. I wouldn’t touch a customer’s car without knowing that I have adequate liability insurance.
I’m a firm believer in a “sixth sense,” and every time I ignore mine I regret it. I’m sure that we have all had the experience of going on a job and having the feeling that something is “just not right.” I’ve been scammed, conned and lied to by customers enough to know that I don’t live in a perfect world. Through the years, I have learned that when I get that “feeling,” I’m better off somewhere else. When that happens, I look closely at the vehicle, scratch my head, consult a reference book or two and then tell the customer “Oh, it’s one of those! I need a (fill in the blank) tool. I’m sorry, but you’ll need to call someone else, and you don’t owe me a thing.” I then leave as fast as I can. I’ve only done this a couple of times, but I’ve learned that life is too short to ignore those little hairs on the back of my neck.