

## Doors: Close Them for Good

by Robert Pelland

I write the following in order to explain a few things that should be known about the removal and replacement of Corvette doors. Before I begin, I must stress that if you have not yet had to do this job, you might not appreciate the following article. But sooner or later you probably will need to, and I believe the following will be invaluable to your success. Let me start by saying that this is a two-part article. The first part will explain the easy way to remove the door and guarantee that when you put it back, it will be in the exact same location. The second part deals with how one person can install and properly adjust a door by himself or herself.

Door removal is a job that is done on a regular basis at most of the repair and restoration shops across the nation. In these shops the usual procedure is done by two people. The first person lifts and balances the door on a floor jack with a piece of wood on it to protect the bottom of the door. The second person is inside the vehicle, and his job is to insert or guide the hinges through the front slots and into the hinge pockets on the inner door. He then inserts and tightens the bolts that hold the hinge to the door. He is also in charge of giving instructions to the first worker who uses the jack to lift or lower the door to the proper height and then proceeds to slide it back and forth so that the holes for the hinges align with the holes on the hinge plates in the door.

I have to admit that this procedure is rather straightforward, and if you were lucky enough to have done it on a few occasions with an experienced helper, it is not intimidating in the least. The problem for the home restorer is that we almost always are working alone, and the regular one-car garage that is home to most of our beloved cars is not really

wide enough to make the job easy going. So let's roll up our sleeves and learn how easy it can be when you know a few tricks.

This first part will deal with a door that is on the car properly installed and adjusted, but must be removed to accomplish some work. Most of the technical manuals and how-to books recommend that you scribe a line around the hinge to use as a guide when the time comes to replace the door in the same position. I can guarantee that regardless of the amount of scribing done, you had better take a very good look at your properly fitting door right now before removing it because chances are that you will never get it back in the same position that it is in.

After having gone through this scribing process a few times without too much success, I have found an easier way to do

it that works for me, and I can guarantee that with a little investment in time and a few dollars you will be able to do the same. To start off, you will need to purchase three cement nails that are used in the construction trade—the ones that workers shoot into concrete with a nail-gun. I have tried different sizes and the ones that are best suited for the job are 3/4" in. length with a diameter of 11/64.

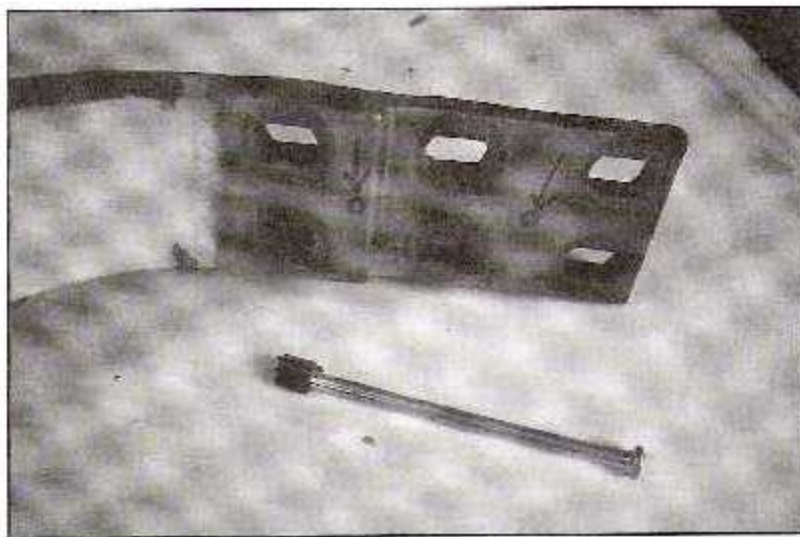


Figure 1

Start by removing the inner door panel, but before unbolting any of the bolts that hold the door in place, drill three small holes the same diameter as your nails, completely through the two hinges, and also through the hinge plate to which the hinges are bolted. (see Fig 1 for placement of the holes) What is needed is two holes through the top hinge and one through the bottom hinge. Once these three holes are drilled, you are then ready to unbolt the hinges and remove the door. The three holes will be used to re-align the hinge

with the hinge plate when the time comes to replace the door. One more thing to be aware of is that most of the hinges have one or more shims in place that serve to adjust the in and out position of the door.

Remove only one set of hinge bolts at a time, as all the shims will end up in a pile at the bottom of the door, and you must be able to identify the number and placement of these shims. Once the shims are removed, the small holes that you just drilled in the shims should be enlarged to at least 1/2 inch in diameter. This will make the task of re-assembly much easier. You may now do whatever work is necessary to the door and to the door opening.

When the time comes to re-install the door, I recommend that you first get some masking tape, and tape the shims to the rear of the hinge. Then all that you need to do is slide the door in place and insert the nails through the holes that you drilled in the hinges and into the hinge plates. You may need to jiggle them a little bit and apply a little pressure here. A few taps with a hammer worked for me. Then once the nails are in place, you are ready to insert the hinge bolts and tighten everything down. At this point before the final tightening of the bolts, remove the masking tape that was used to hold the shims in place. When the bolts are firmly seated, you may then remove the nails, or guide pins as I call them, and you will end up with a door that is in exactly the same position as it was before it was removed from the vehicle, requiring absolutely no further adjustment.

If the preceding sounded like an easy thing to do, wait till you see the second part of this how-to. As you can see, using the guide pins to align the door before its removal and re-installation is rather straightforward, but what if the door is missing altogether, or worst yet, has suffered damage in a collision and needed replacement. No amount of planning or measuring would insure the proper placement in this type of hit or miss situation, so here to the rescue is my first-time, one-man, installation procedure.

There is no way that one person can install a door by himself using the usual shop technique (one man with the jack, another in the car) that is common in the restoration shops. So I have found a way that it can be done by making it a one-man operation. All that is needed for tools is a half dozen assorted deep sockets, 3/8-inch, and also 1/2-inch drives. Before starting the procedure, I also recommend that you remove the door striker and mark its position with masking tape—no scribing here either.

The same type of movement that we saw earlier in the two-man installation, which is the up-and-down positioning and the back-and-forth movement of the door, is needed here

to get the door in its proper position in the opening. To start the operation, open both hinges to the position they would be if the door were open. Then while lifting the door, insert the hinges into the slots in the front of the door and carefully move the door to what would be its closed position. From this point on, there is nothing that will be holding the door in place, so care must be taken not to damage it or have it slide out of the opening.

The next task is to slightly raise the door to the proper position. At this stage we're still talking about eyeballing, but a good indication would be to use the crease line in the middle of the car as an initial guide. Here is where our deep sockets come in. Reach inside through the open window and insert one socket close to each end of the door between the bottom of the door and the sill plate. These sockets actually raise the door to the correct height, and they also serve as rollers so that while holding the door in a raised position, you may roll the door back and forth in order to center the door in its opening.

I mentioned earlier that an assortment of sockets is needed because I cannot tell you how high the door must be raised in order to be at the proper height. By changing to a larger or smaller size socket, you will actually be able to raise or lower the front or the rear of the door and all the while have the ability to move it back and forth in the opening in order to get it in the exact position needed.

Now that you were able to get this far, all that is left to do is to tighten a few bolts in the hinges and your installation will be completed. To do so you should hold the door in position with one hand and with the other hand reach through the open window and install two bolts in each of the hinges. Once there are a couple of bolts tightened down in each hinge, you may carefully open the door, remove the deep sockets, and finish the job by installing the rest of the hinge bolts and replacing the door striker.

If the above information sounds a little confusing, I must say that it's a lot easier to do than to try to understand the process just by reading the article. It actually is very easy to accomplish once the steps are understood. I sincerely hope it helps you undertake the job with a little more confidence.

Your comments are always appreciated.

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