How To Front Door Disassembly

VCV front door disassembly is one important component of restoring our vans. This “How to” shows how I would disassemble the doors. If you have any suggested improvements, please forward any ideas to me and I will include them. Thank you in advance.

This tutorial shows the door already removed from the van. It’s possible to perform the following disassembly while on the van, it was just easier to document this process with the door removed.

It is very helpful if you have one of these. Body shops use them as a portable stand. They can hold about 500 lbs. and come in real handy. You can of course use a table instead. If you do, I advise padding it heavily with a moving blanket, plenty of towels or other heavy padding. The door can slide around and there’s no sense in having the door get more damaged because it’s sliding around or fell off the table.

So, here's one of the doors I'll show. I pulled this one off of a van in the boneyard back in the day when they actually showed up there from time to time. It's had the mirrors removed. This is most likely a 1967 door since there is a lock cylinder below the door handle but no reflector hole like the 68-70 models have. 1st Gen (64-66) doors have the lock in the button of the handle. Notice on this one that the Junior West Coast (JWC) Style mirrors probably did not come on this door but has a provision for it. Notice the three screw holes in the door where the lower mirror mount would be. I think GM just installed different mirrors and plugged those holes with screws. They did have a bracket on the inside that had threaded fittings. In the background is my 65 GMC HandiBus Custom that continues to wait patiently for me to get to apply some lovin to it.

Pic 0192

Here’s the interior side of the door. You can see the speaker installation which unfortunately means a fat hole in the door. There’s also some hits around the window. Notice the 1st gen door pull which means at least that has been replaced. Some of these hits and other damage should be considered before you spend too much time and money on a door. It's also good to be aware of these issues if you are considering the purchase of a used replacement door. Since most of these hits, holes, dings and cracks are the inside, and since there’s not too many of these available for replacement, this door is worth keeping.

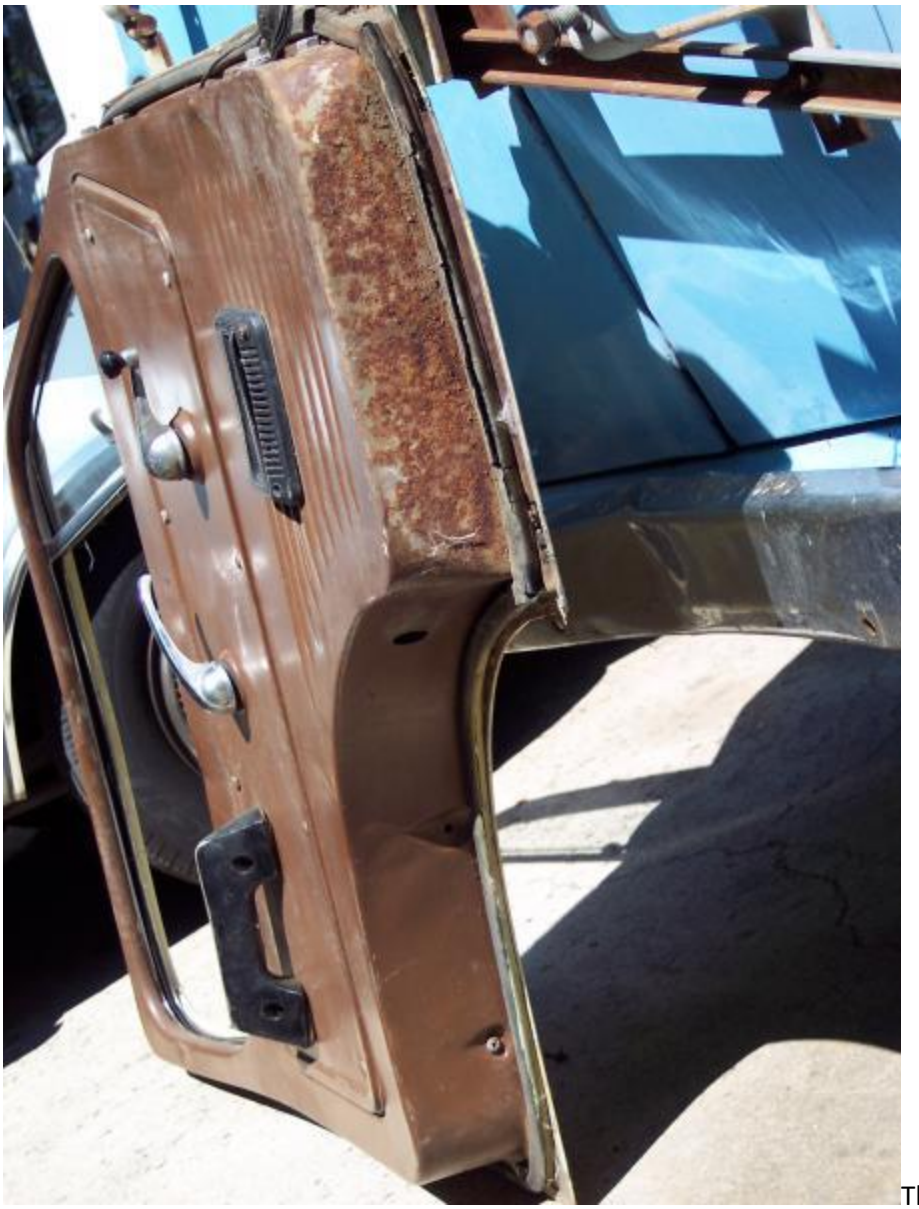
Pic 0191 

So before putting too much effort into the door, it's a good opportunity to give the door a good inspection so you have an idea of what has to be repaired. Anyway, this one shows a crack along the window opening line. A crack like this can be fixed with a good TIG weld if you wish. I'm not sure what caused this crack. You can also see some chipping of the glass along the top edge.

Pic 0193 

This pic shows the hinge end of the door. Notice the extra-large flat washers through the bolts holding the lower hinge. They've also improvised a door stop check swing with that side door fabric strap. That probably happened after the original door stop broke off. The spot where it used to be also has seen better days judging from that hole. There's more creases in the door above and below that hole where they may have used wood or something else to prop the door open and then forced it in the closed direction accidentally. Oh, my poor VCV door! Why have they abused you so?

Pic 0194

 This shows the bottom of the door and the rust spots common for these. This one is not rotted through but could sure use some attention. It’s best to give these doors a good looking over before you commit to something.

Pic 0195

This is a shot of the upper hinge bolts. Notice the cracks around the bolts, more evidence that this door has been stressed from plenty of time and weight. This can happen because someone enters and exits the van by leaning on the door. These doors are already way too heavy for those hinges. Please consider not leaning on these doors when getting into and out of your VCV.

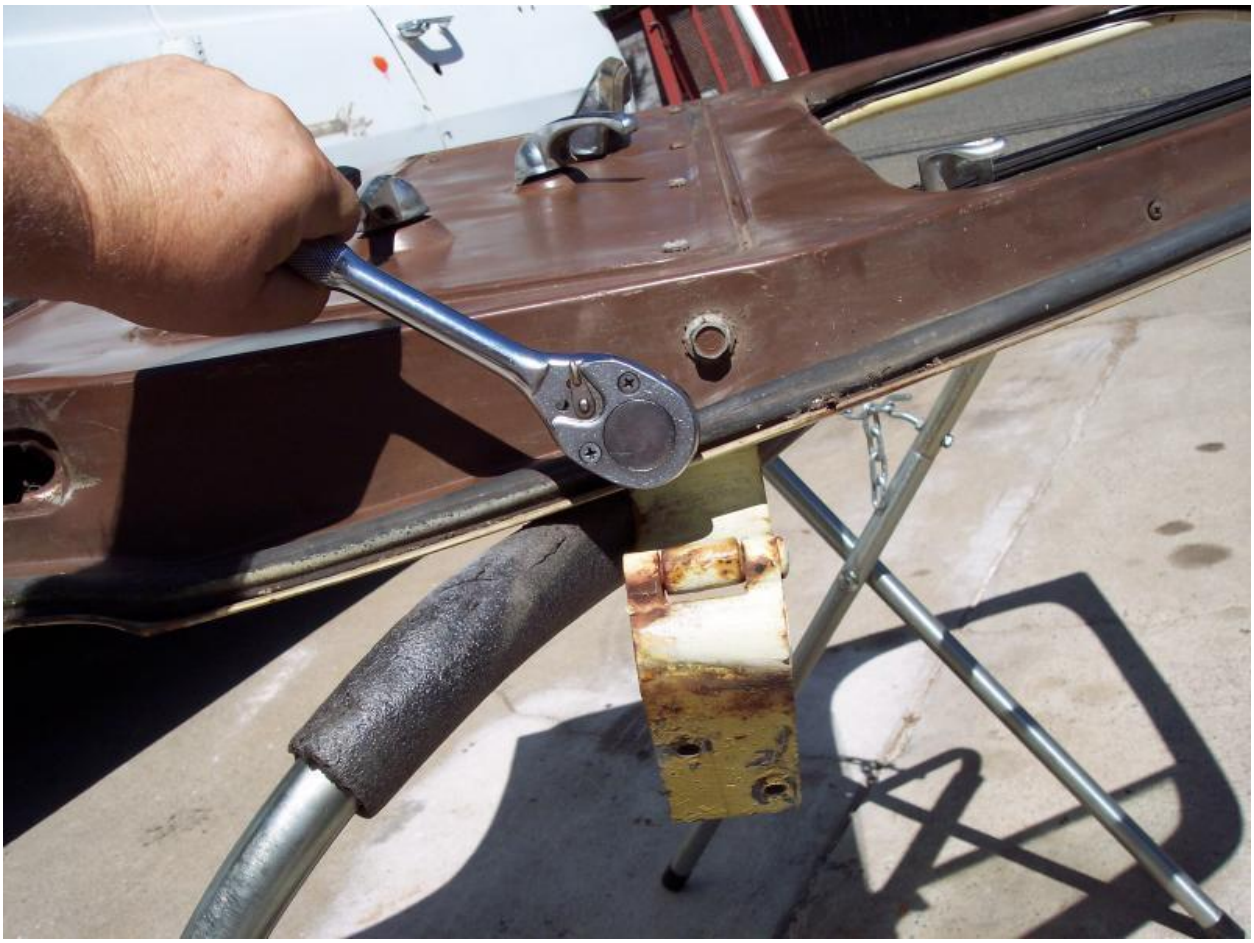
Pic 0199

This shows the latch and again there's some big flat washers. This area is notoriously weak on these doors. When the hinges sag, the latch doesn't line up correctly and the doors get slammed to close them. The thin sheet metal starts to fatigue and crack. A replacement patch panel is available for this area, BTW. The latches usually are reusable but the sheet metal in that area should be inspected and repaired as required.

Pic 0196, Pic 0197

Another thing to check is the hinges. Put some pressure on the hinge to check for play. It’s common that the hinge pins need to be replaced.

Pic 0198



So on to the disassembly. Even if the door is not to be used, there's plenty of parts to harvest. Start with removing the bolts holding the hinges in place. Preferred is a ½' Drive ratchet with 9/16" socket. The bolt threads protrude through the hinge on the inside and the exposed threads may be rusty. If the bolt doesn't come out with even pressure then don't force it. Hit the inside threads with penetrating oil, run the bolt back in and work it back and forth. No sense in breaking off the bolt or damaging the threads any more than necessary. It's likely those bolts have not been removed since the were installed back at the factory.

 This shows the metal fatigue near the hinge attachment area. This will require some welding to make right.

Pic 0200

To remove the window crank handle, loosen the screw with a flat blade screwdriver and then pull the handle off. There’s no need to completely remove the screw from the handle.

Pic 0201

There’s two types of window crank handles and each has a different attachment method. The top one is the early style with a screw attachment. The bottom one is the later style with the clip type attachment. You can see the clip still in the handle. The tool required for each is shown. Neither style requires you to remove the screw or clip to remove the handle. No sense in removing either if you can avoid it. Those parts love to drop twice and then hide from you. Keep a rare earth magnet handy just in case.

Pic 0202

There’s that clip that likes to jump, hide and disappear until you buy a box of them.

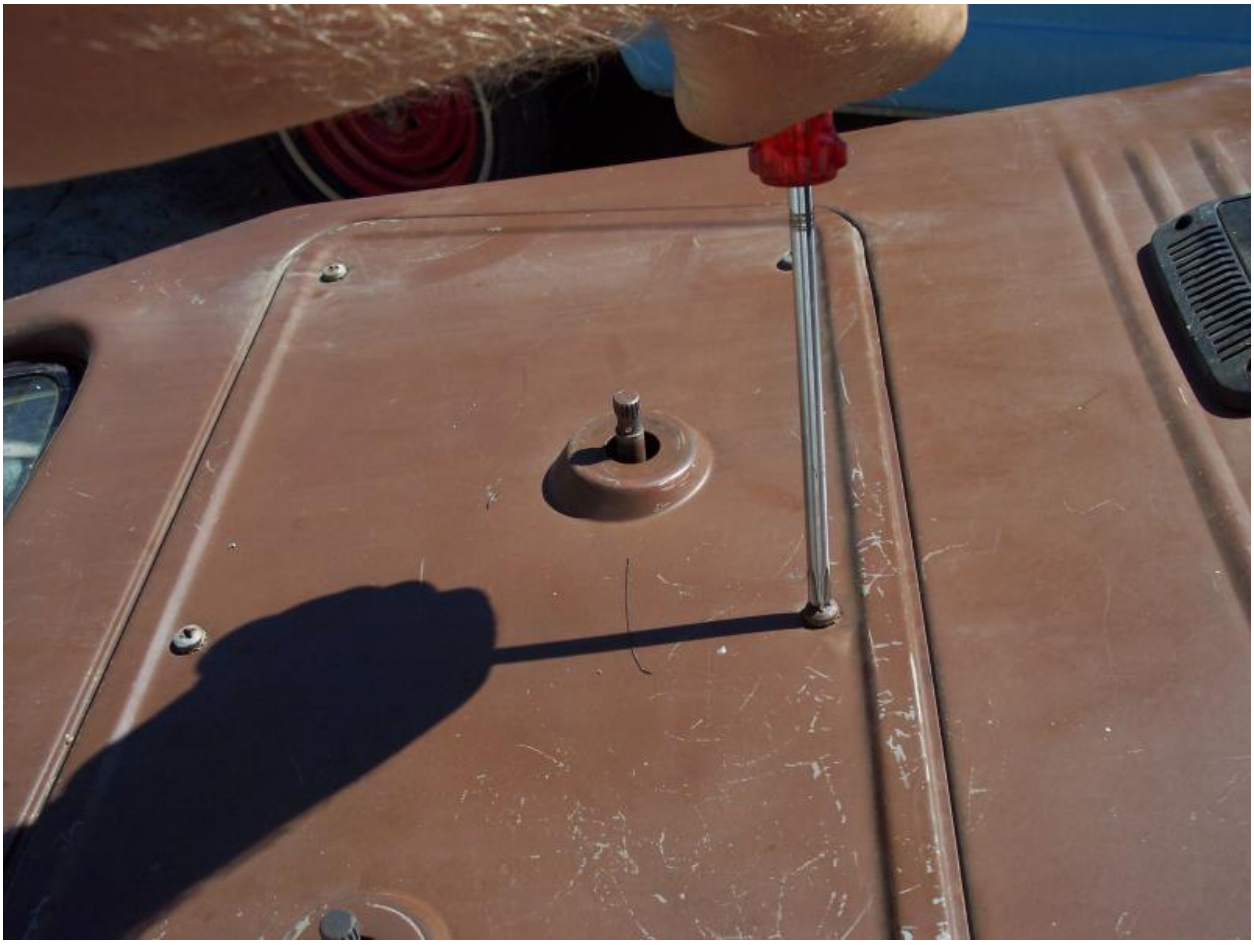
Pic 0203

If they are still there, save these plastic pieces. Even if they are cracked like these. You can reuse them and they help deflect air coming into the van at speed. Every little bit helps. Once the handle are in place, you cant tell they are cracked anyway.

Pic 0204

Next, remove the two screws holding the door pull onto the door. Be sure to use a #3 Phillips screwdriver. They will fit better and cause less damage to the screws.

Pic 0205



Now remove the screws holding the door panel to the door. Here's where that #3 screwdriver really comes in handy. Make sure the screwdriver is lined up square on the screw and that you are pushing down with enough force to keep the driver from slipping on the fastener. Try not to push down so much that you tweak the exterior door sheet metal. Some of these instructions may seem like overkill to many who know their way around something as basic as a screwdriver but since this tutorial is for everyone, please excuse some of my comments. Besides, a little simple care can prevent damage that takes a lot of fixing later.

Pic 0206

So the panel is off and laid out are the screws. Notice how the screws holding on the latch mechanism and window regulator are the same? This will come in handy later if there's any visible damage to the door panel screws. You can swap out the screws so that the ones holding on the door panel are the only ones visible. The damaged ones, if they are still useable can be hidden behind the door panel and used to hold on the latch and window regulator. Otherwise you can just buy some more screws. BTW, they're 1/4'" x 20 pan head Phillips screws with captured exterior lock washer. Personally, I prefer the stainless-steel version. They cost about 17 cents apiece if you buy 100 at a time. Notice the anti-seize compound. This should be applied to the threads of all these screws during reassembly.


Pic 0207

Pull the window seal from the door starting at the wing (vent) window.

Pic 0208

When you get to the latch end of the door, pull the seal out along the door line.

Pic 0209

 This is what it will look like when removed. Set it aside for later comparison with the install piece.

Pic 0210

Now comes the rear door glass guide removal. At this point, if you don't have a #3 phillips screwdriver, stop what you're doing and go buy one. If you are feeling that lucky then go but a lottery ticket and proceed with what ever tool you have, maybe a bear skin, rock hammer and stone knife.

This glass guide is very likely to give you the greatest problems. If it's already broken then save all the pieces possible so you repair it. If it's not broken the do yourself a favor and take your time removing it. Don't be like other idiots (me!) and rush things at this point.

Pic 0211

Here comes the tough one. This screw holds on the bottom of the latch side glass guide channel. It is very likely rusted, frozen, or stuck. And this is if you are lucky. If you are not lucky then it's already broken and you'll have to deal with repairing it later. You are still going to need this screw removed and with as little damage to it and everything around it as possible. So, again, this screw will likely give you the most trouble of any other screw so far. Don't rush this removal. Take your time, you'll be happy you did. If you are at a stopping point now, then please stop, lube the inside part of that screw with the best penetrating oil you have and tackle it later. Personally, I always like Mopar Heat Riser Solvent which contained Butyl Cellusolv. I'm not even sure it is still available. Back in the day, it would consistently do the best job at loosening stuck hard, rusted parts. It also worked better than Raid at killing Black Widow spiders. Anyway, that screw extends beyond the square nut it is threaded into. That means that rust is on a portion of the threads that has been exposed. The screw is stuck in the nut which holds the bottom part of the channel onto the door. Plan on spending whatever time it takes to remove this screw by working it back and forth until it complies with your wishes. Do not give into the temptation of forcing it lest you pay the penalty. Having been appropriately warned, we may proceed.

Pic 0214

This is the ideal position I have found for working loose this fastener. One hand inside to hold the bottom of the door glass channel and one hand working the screwdriver. You must hold the bottom of the channel while working the screwdriver. If not, the channel will spin, tweak, break and cause VCV heartbreak. Once you feel the screw moving while the bottom of the channel is not, then you have a chance at success. This just means that you can work that screw back and forth until it comes out clean. Take whatever time is required because I have none of these to sell, only plenty to repair. Pick a hot day, plan to sweat and chant something like “I love my VCVan”. It can’t hurt more than the door edge biting into your arm.

Pic 0215

This is the piece removed. Keep it someplace safe because you'll need it. This piece works on either the driver's or passenger's side door. A treasured piece for those who want their door glass to stay in place.

Pic 0216

Pull The door locks by removing the clip. Rock the clip back and forth and catch the lock mechanism in case it wants to fall. There's a round gasket around that lock that will come out in pieces. Check Clark's Corvair for replacements.

Pic 0217

Remove the two door handle screws. One is on the inside of the door panel..

Pic 0218

 One is on the outside. The door handle should come right off.

Pic 0219

Position the glass as shown tilting the latch end up. The window regulator can start in the mid position but be ready to reattach the window crank handle if you need to move it some to disengage the regulator from the bottom the glass guide. Now carefully lower the glass down into the door while you remove the window seals. Try not to shake the door around too much during this next operation or you may scratch the glass which is loos in the door.

Pic 0220

Remove the window seals before the glass is removed the door.

Pic 0221

Remove the glass seal with a tool to protect the door but allows you to pry the seal away.

Pic 0222

This shows the seal removed and the clips that hold it to the door.

Pic 0223

Remove the seals from both sides.

Pic 0224

Then position the glass as shown and carefully remove it. Take the glass out tilted to the inside part of the door as shown.

Pic 0225

Now remove the three door latch mechanism screws.

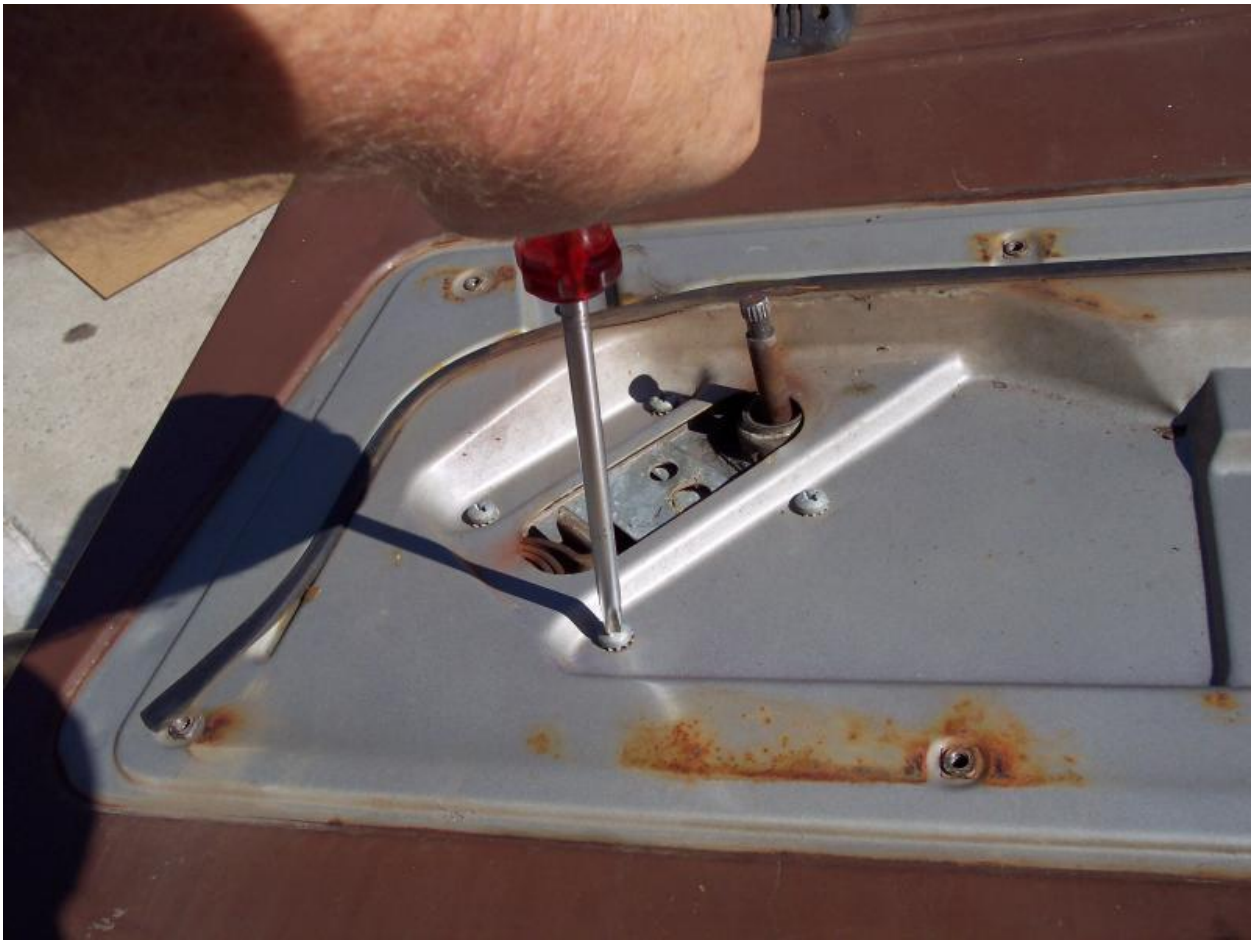
Pic 0226

Now remove the three door latch screws.

Pic 0227

This is the latch and mechanism removed.

Pic 0228



Now remove the four window regulator mounting screws.

Pic 0229

Here you see the damaged are around the door latch. Repair patch panels are available from 108VG. (Shameless Self advertising)

Pic 0230


Remove the two screws holding the bottom of the vent window

Pic 0231, Pic 0232

There’s three more screws holding the vent window on to the door. Use a #2 Phillips on these.

Pic 0233

Then pull the wing window away from the door in this direction.

Pic 0234, Pic 0235

Once the vent window is most of the way out, you will need to rotate it 90 degrees to allow the lower mount to clear the window gap. It usually comes out easier along this position of the opening.

Pic 0236

Here’s the vent window removed with the attaching screws nearby.

Pic 0237

And that’s pretty much it. Here’s all the pieces and most of the tools you’ll need for the job.

This tutorial only shows removal, not the overhaul. Several other members have shown how to repair the vent windows so I won’t duplicate that. Mac's Doghouse has repaired the window regulators in the past. Contact him if yours needs attention. I'll try to post up some more tutorials as time permits. Best wishes on your van project. Hope this "How To" has been helpful and VCVan On!

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