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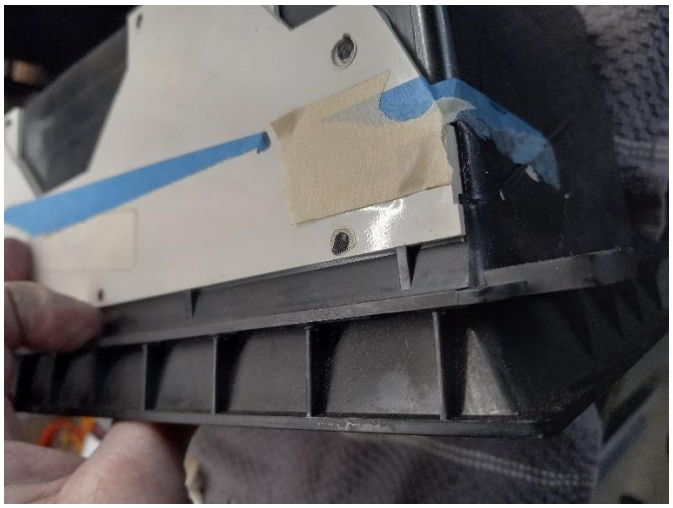
Wagonmeister Replacement Instrument Cluster Window For Volvo 240, 1981-1993

Thanks for purchasing a new window for your cluster. These instructions will help you achieve the same results we do, here at Wagonmeister, when we refurbish clusters. You can also ship your cluster in to have the window replaced, or to deal with other visual or operational issues. Contact us for details. wagonmeister@wagonmeister.com

The most important thing to keep in mind, for this project, is that we don't have the ability to exactly reproduce Volvo's original windows. They were made by the millions. There are some tradeoffs, and those will be addressed in the instructions. If your new window seems different, rest assured it will still function and fit perfectly. Here we go!

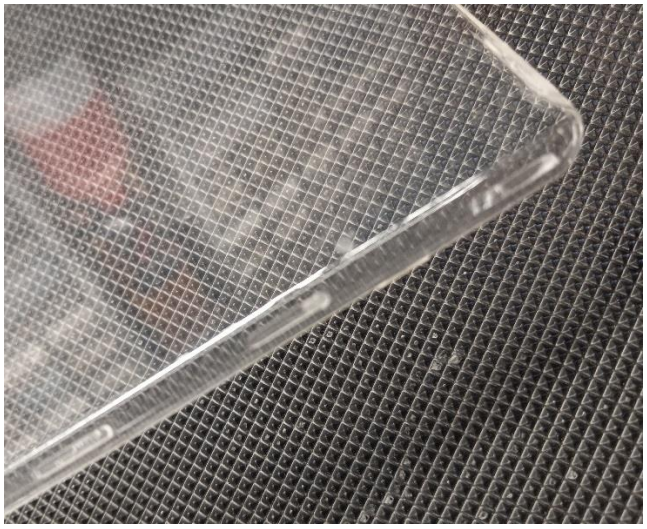
Replacement of the window requires that the cluster's housing be disassembled. Start by removing the seven screws on the back of your cluster, that attach the instrumentation assembly to the housing. Remove the entire instrument assembly and set it someplace safe.

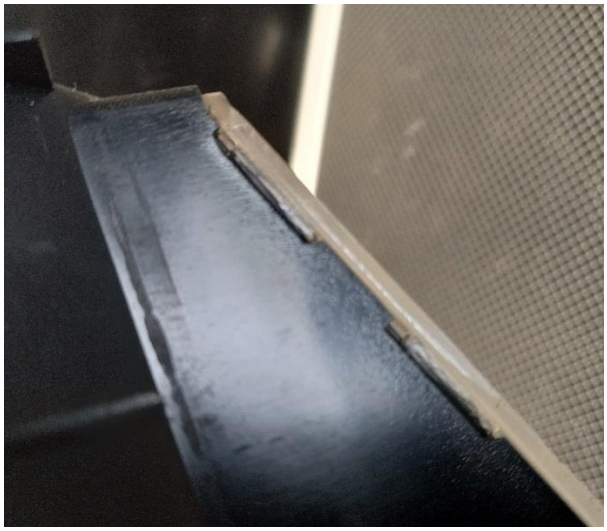
Next, the instrument cluster housing's bezel and window assembly must be removed from the rear housing. If you examine the perimeter of the bezel, you will see fins all around that extend from the front edge of the bezel, to the rear housing. These are heat-fused to the rear housing.



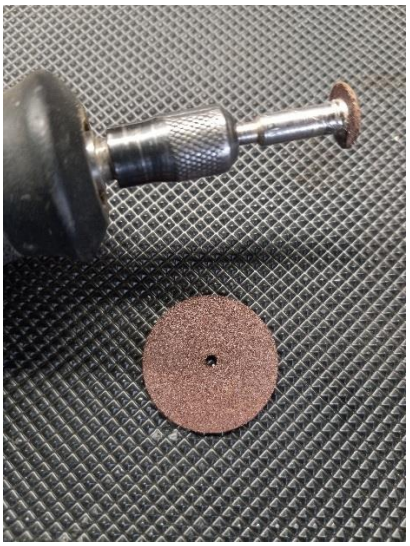
These fins must be cut away from the rear housing for the bezel to be removed, and to gain access to the old window. Using a single edged razor blade, and great care, slice the back of each of the fins to separate them from the rear housing. Cut the fins as perfectly flush to the rear housing's surface as possible. Always take great caution when using razor blades as tools. Here, you can see the gaps cut by the blade.

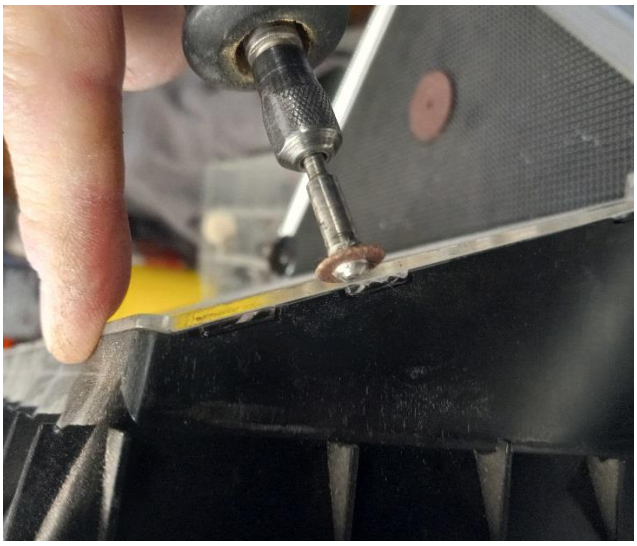
With all the fins cut and separated from the rear housing, remove the entire bezel/window assembly, and set the housing aside. The window has, all around its perimeter, "teeth". These raised tabs are how the window is bonded to the bezel. You'll see these bonds on the bezel perimeter.





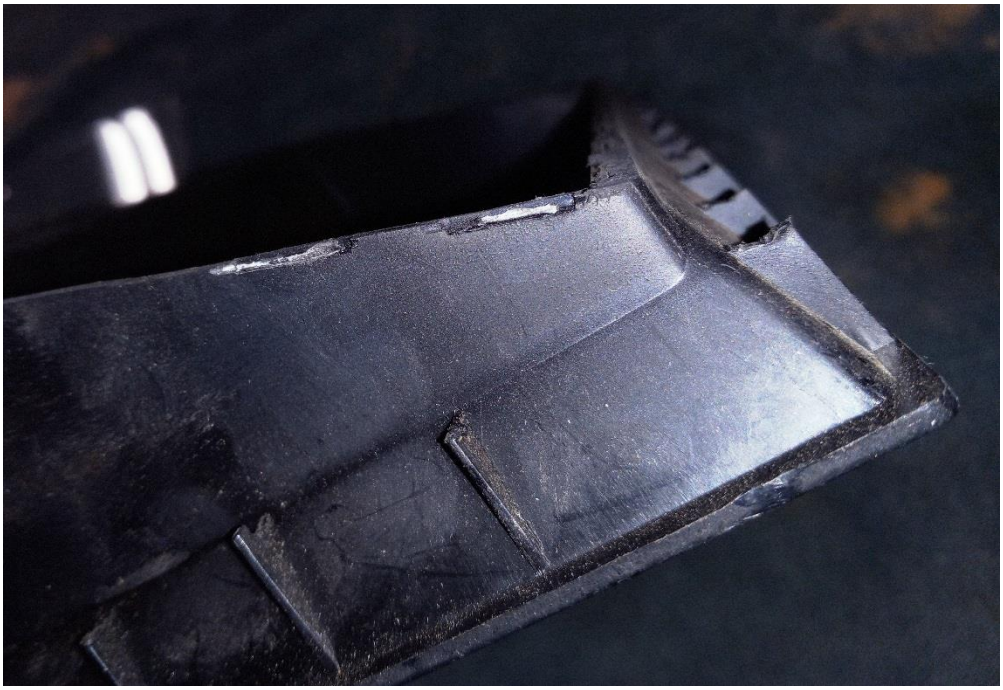
Each of these heat welds must be broken, carefully, to remove the old window from the bezel. It must be done without damaging the bezel, which you will be reusing. The best means we've found to do this is a mini-grinder tool, like a Dremel, fitted with a circular saw blade or a cutting disc. You must be cautious not to create too much heat! Cut each tab to free the window. Some may already be free of the bezel.





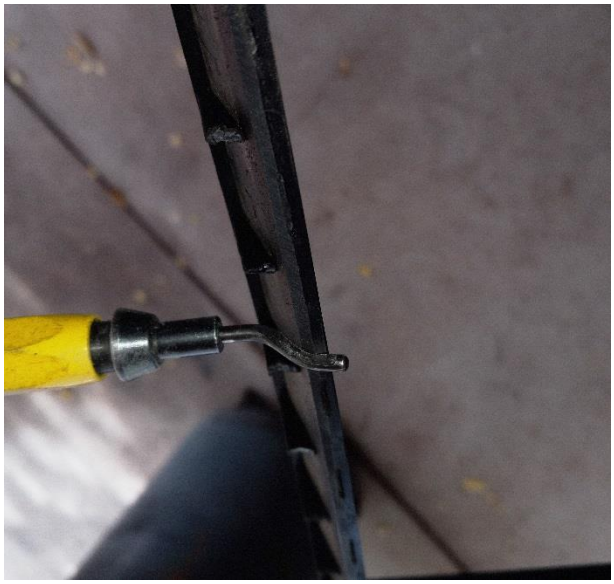
Once the old window is removed from the bezel, you'll notice the major difference between the original and the replacement. The top and bottom edges of the old window are not flat. You can see that above. The edges of the old window are "bent", to conform to the back edge of the bezel. Unfortunately, this is not something that can be easily reproduced, and thus the new windows are flat. To ensure that the bezel will reinstall in the housing, that edge must be modified, or you will have this, below, a big gap between the bezel and the new window. No way to reassemble it like that!

The back edge of the bezel has to be sanded or ground to remove the “step” that keeps the new window from sitting flat. Our favorite way to do this is on a belt sander. It can also be done with a carpenter’s plane, a grinder/sander, a sanding block, or with a piece of sandpaper affixed to a flat surface. Here’s what you want to achieve. Note how the step has been removed.



It isn’t necessary to do the bottom edge, as that “turns” the other way. If you are using a large belt sander, it allows you to flatten the entire perimeter and remove any damage from grinding out the window tabs. Don’t overdo it! The idea is to maintain the “height” of the bezel assembly, as measured at the sides. If you take off too much, the fins will contact the rear housing at assembly time, before you clamp the new window in place.

Next, you must completely clean all sanded/ground edges of the bezel’s rear edge to provide a clean, tidy surface. Use a sharp knife, a deburring tool, whatever works for you.



Once you have cleaned all the edges of the bezel, and created a good, smooth surface, with no scrap or threads to dangle in your “view”, you are ready to assemble the housing.

Wagonmeister sells two styles of window; two hole and three hole. The windows with three holes are for 90-93 LH2.4 clusters. 90 is the first year for SRS, the supplemental restraint system. With the airbag in the steering wheel, came the big, under-dash knee bolster. This bolster made it much more difficult to access the clusters’ service reminder reset lever that appeared for ’88. Thus, Volvo created a remote reset button, that appears in the lower right corner of the cluster window. There’s our second difference. The original windows have a raised boss around that little button, that could not be reproduced.

If you choose to eliminate the reset, (the service reminder mechanism is notoriously inaccurate) or if you have an 81-89 cluster, you can purchase the window with only two holes.

The center, square hole, for the odometer reset, is larger, vertically, than necessary. This is because we cannot cut the opening with angled edges to compensate for the angle of the window. Aside from allowing us to clear the reset button, this taller hole releases the tension on the reset button, which is partially responsible for them breaking.

We highly recommend testing the fit of all parts before you glue the window in place. Slip your window into the rear housing first, in the proper orientation. Do all test-fitting without removing the protective paper from the new window, to avoid scratches.

Carefully fit the window down into the rear housing, with the holes in the DEEPEST part. Make sure it seats toward the BOTTOM of the housing. The window has been sized vertically to compensate for the angles, and if there is a slight gap, it needs to be at the TOP of the cluster once assembled.

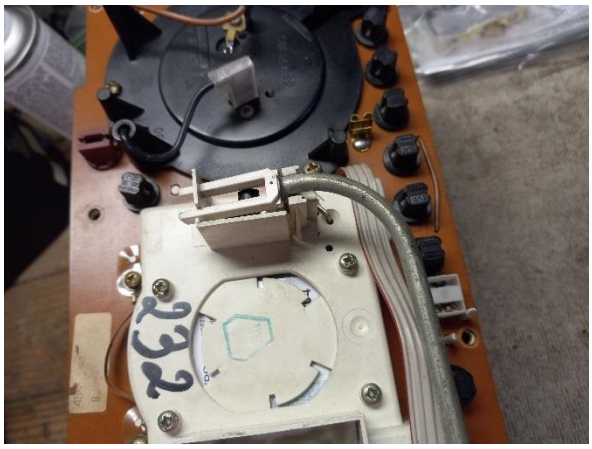
Once seated, slip the bezel into place over the window. You'll see that the fins should just be back in contact with the rear housing. The new window is slightly thinner than the old one. Make certain everything seats properly before proceeding. If you need to clean off any errant bits of plastic from the sanding process, it must happen now, before final assembly. This is the time to clean the instrumentation surround—the surface the gauges mount behind.

This picture shows the slightly taller hole for the odometer reset button. This is a "three hole" window, with the hole on the far right for the service reminder reset button.

Before proceeding, if you have a 90-93 cluster with the remote service reset assembly, (the tube with cable inside, and the button) REMOVE that from the cluster's instrument package. It snaps out of the speedometer rear cover. You will need to remove the grounding plate and voltage regulator to pull the button portion out. The regulator assembly just slides out of its socket.

Remove the grounding plate and regulator.

Remove the service reset button.



Remove the tube from the speedo housing.

Now you can test install the entire instrument package/backboard assembly to make sure all is in perfect order, before permanently reassembling the housing. You will notice that the odometer reset button is a close fit, width-wise, in its cutout. Be cautious as you insert it.

Once you have confirmed that everything is clean, and fits together properly, remove the instrument package, front bezel, and the new window.

It is NOT necessary to glue the new window in place, to either the rear housing or the bezel. Moisture and dust will find a way in, no matter what, so a hermetically sealed cluster really isn't a possibility. If you wish to make certain the window cannot move, we recommend using several tiny drops of silicone glue, like GE's Clear Premium Silicone Glue, in the corners of the rear housing where the window seats. If you use too much, it will squeeze out and get all over your new window! Very hard to remove. Place your adhesive up on the sides of the rear housing, just barely onto the ledge. This will help avoid getting adhesive on the visible part of the window. You can also put adhesive on the back edge of the bezel if you like. This will all help make certain the new window is fixed in place.

Remove the paper liners from both sides of your new window, and carefully place it into the rear housing. *Again, if you are using adhesive, be careful not to smear it on to the window!*

Next step is to reinstall the bezel. This part absolutely needs to be glued in place. Cyanoacrylate adhesive, "super glue", has worked for us for 20+ years. Put a drop on each of the spots where the fins were cut away from the rear housing. Don't be too stingy here. You need a small puddle large enough to ensure that any gap between a fin and the housing will be bridged. But…don't overdo it. See below, that's just right.

Insert the bezel into the rear housing and push it all the way down against the window. The fins should all contact the edge of the rear housing, or very nearly so. With the bezel installed, flip the housing over on a clean surface, preferably on a thin towel. Weight the assembly down with something heavy enough to ensure the bezel and rear housing are pressed as closely together as possible, to assure the best bond for the glue. Don't use anything dusty or dirty, it will invariably leave junk in your cluster housing. Nothing too heavy either, you don't want to crack anything.

Congratulations! You've exorcised years of water spots, damage from car wash attendants spraying vinyl protectant on your cluster, cracks from who knows what, and just dingy, scratched, old parts. Shown below, that is not a stock rear housing/facia, and is not in the best condition, but you can see how crystal-clear things are with the new window in place. Regardless, make sure to blow out the cluster with compressed air before final assembly. Once you have the instrument package and back board in place, reinstall your service reminder reset tube if applicable, and the ground plate and regulator.

Care and maintenance of your cluster's window

Never use any type of chemical to clean your instrument cluster's window. This is acrylic, and it's quite durable, but it is not glass. Never use window cleaner, or anything with ammonia. Never use solvents. A damp cloth is all that should ever touch the plastic. If it has to be cleaned, use mild soap, like dish soap, but take care not to let the solution get inside your cluster. If it does become stained, or scratched, minor details can be polished out with toothpaste, but be careful not to press too hard, or the plastic will crack.

Thanks again for purchasing Wagonmeister products.

Keep those bricks on the road!